



A PROJECT UNDERTAKEN BY THE e-LEARNING JAMAICA COMPANY LTD.

FUJITSU

DELL

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# Document Control

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## **Introduction**

This document is for reference and is an accompaniment to the Knowledge Transfer Session, which gives a System Administrator an insight into the staging and delivery processes used by Fujitsu for setting up the e-Learning compliant network in their schools. Following this is a list of all the equipment and their specifications.

Instructions on how to identify and locate the Service Tag Number for the equipment is outlined in detail. There is also a step by step procedure for placing a warranty call along with how to access the Dell website with regard to obtaining servicing, maintenance and upgrade information.

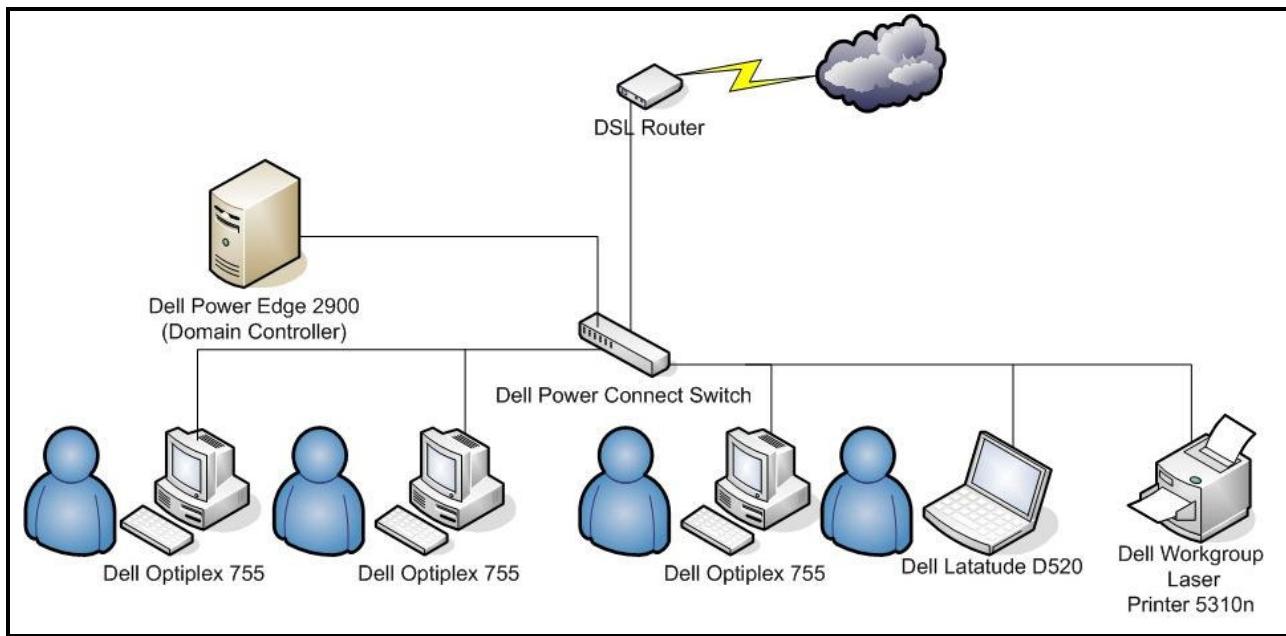
Additionally simple steps on how to install Symantec Endpoint Protection 11.0 (Anti-virus component) are introduced.

The clearing of printer jams and the replacement of toner cartridges will be outlined in the simplest of forms. For useful reading and to add clarity and information to the reader a glossary is attached to explain some of the terms contained in the document.

It must be noted that the Knowledge Transfer Session will be accompanied by more detailed and formal training to be provided by the e-Learning Jamaica Company Limited and Dell, and therefore the topics covered in this manual are just an introduction to the said subject areas.

**TYPICAL SCHOOL NETWORK**

This is how the typical network diagram should look.



***The above is a diagram showing a typical school's network infrastructure***

Upon deployment of your new network system here is a list of the items that you will receive.

- **WORKSTATIONS/DESKTOPS**

**Base Unit**

OptiPlex 755 Small Form Factor Pentium Dual Core E2160/1.8GHz1M, 800FSB

**Operating System**

Windows XP Professional Service Pack 2, with Media, Factory Install

**Memory**

1.0GB, Non-ECC, 667MHz DDR2 1x1GB

**Monitor**

Dell E178FP, 17 Inch Flat panel 17.0 Inch Viewable Image Size

**Hard Drives**

80GB SATA 3.0Gb/s and 8 MB DataBurst Cache

**Mouse**

Dell USB 2 Button Optical Mouse with Scroll, Black

**Video Card**

Integrated video, GMA3100

**Accompanying Documentation & CDs**

Quick Reference Guide

Resource CD - Diagnostics and Drivers for Dell OptiPlex 755

Cyberlink Power DVD

**CD-ROM or DVD-ROM**

24X24 CDRW/DVD Combo, EIDE Slim line

**Floppy Drive**

3.5 inch, 1.44MB, Slim line Floppy Drive

**Keyboard**

Dell USB Keyboard, No Hot Keys English, Black

## • SERVERS

**Base Unit**

Quad Core Xeon Processor E54102x6MB Cache, 2.33GHz

**Memory**

2GB 667MHz (4x512MB), Single Ranked DIMMs

**Hard Drive**

73GB 15K RPM Serial-Attach SCSI 3Gbps 3.5-in Hot Plug Hard Drive

**Hard Drive Controller**

PERC5/I, Integrated Controller Card, RAID 1

**Operating System**

Windows Server 2003 R2 Standard Edition with SP2 includes 5 CALs

**NIC – Network Interface Card**

2 Embedded Broadcom NetXtreme II5708 Gigabit Ethernet NIC

**Tape Backup Unit (TBU)**

PowerVault V110T, LTO-3 Tape Backup, 400/800, FH w/Controller, Internal for PowerEdge 2900

**Monitors**

Dell E178FPW, 17 Inch, Flat Panel 17.0 Inch

**Keyboard**

Dell USB Keyboard, No Hot Keys RoHS Compliant, Black

**Mouse**

New Dell USB 2 Button Optical Mouse with Scroll, Black

**CD-ROM**

48X IDE CD-ROM for PowerEdge 2900

**Accompanying Documentation & CDs**

Electronic Documentation and OpenManage CD Kit, PE2900

**Additional Storage Products**

73Gb 15K RPM Serial-attach SCSI 3Gbps 3.5-in Hot Plug Hard Drive

**Additional Feature**

Integrated SAS/SATA RAID 1 PERC 6/I Integrated

**Orientation**

Tower Chassis

## • LAPTOPS



### **Processor**

Intel Core Duo T7250, 2.00GHz, 2M L2 Cache, 800MHz Dual Core

### **Display**

15 inch Standard Aspect XGA LCD for Latitude D530

### **Memory**

1GB, DDR2-667 SDRAM, 1 DIMM for Dell Latitude Notebooks

### **Keyboard**

Internal English Keyboard for Latitude D5X0

### **Video Card**

Intel Integrated Graphics Media Accelerator X3100 Latitude D530

### **Hard Drive**

80GB Free Fall Sensor Hard Drive 9.5MM, 7200RPM

### **Operating System**

Windows XP Professional, SP2 with media, for Latitude English, Factory Installed  
(Vista Business SP1 DVD accompanying w/ downgradable license)

### **NIC**

Dell Wireless 360 Bluetooth Module for XP, Latitude

### **Mouse**

New Dell USB Optical Mouse with Scroll, Black ID, Latitude

### **Power Adapter**

65W AC Adapter for Latitude XTD530

### **CD-ROM or DVD-ROM**

24X CDRW/DVD with Cyberlink Power DVD for Latitude D530

### **Wireless**

Dell Wireless 1395 WLAN (802.11g, 54Mbps) Mini Card, Latitude

### **Factory Installed Software**

Resource DVD w/Diagnostics and Drivers for Latitude D530 Notebook

### **Feature**

6-Cell/56 WHr Primary Battery for Dell all Latitude D5X0 Factory Install

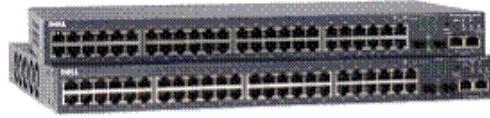
- PRINTERS

Dell Laser Printer 5301n	Dell 5330dn Mono Laser Printer
 <p><b>Technical Detail</b> DELL Laser Printer 5310n (Black &amp; White) (Duplex printing capabilities)</p> <p><b>Resolution</b> 1200 x 1200 dpi (BW)</p> <p><b>Speed</b> 50ppm</p> <p><b>Monthly Duty Volume</b> 250,000+</p> <p><b>Media Types</b> Bond paper, Cards, Envelopes, Labels, Plain Paper, Recycled Paper, Transparencies, Pre-punched Paper, Color Paper, Rough Paper</p> <p><b>Max Media Size</b> 8.5 x 14"</p> <p><b>Total Media Capacity</b> 600 Sheets</p> <p><b>Installed RAM</b> 128M</p> <p><b>Max Memory</b> 640M</p>	 <p><b>Technical Detail</b> DELL 5330dn Mono Laser Printer (Black &amp; White) (Duplex printing capabilities)</p> <p><b>Resolution</b> 600 x 600 dpi (Dots per Inch), 1200 Image Quality</p> <p><b>Speed</b> 50ppm</p> <p><b>Monthly Duty Volume</b> Up to 250,000 pages per month</p> <p><b>Media Types</b> Plain, Thick, Thicker, Thin, Colored, Pre-Printed, Recycled, Envelope, Transparency, Label, Cardstock, Bond, Letterhead.</p> <p><b>Total Media Capacity</b> 600 Sheets</p> <p><b>Installed RAM</b> 256 MB standard</p> <p><b>Max Memory</b> 768M</p>

- **SWITCHES**



Dell PowerConnect 3424



Dell PowerConnect 3448

or

***Dell Power Connect 3424/3448 (Please note that switches are either 24 or 48 ports)***

- 24 or 48 10/100BASE-T auto-sensing Fast Ethernet switching ports
- Additional 2 Copper GbE ports PLUS 2 optional Fiber GbE via SFP transceivers
- Integrated Copper GbE ports provide resilient stacking
- Auto-negotiation for speed, duplex mode and flow control
- Auto MDI/MDIX
- Port mirroring
- Broadcast storm control

## HOW TO LOCATE THE SERVICE TAG NUMBER (A)

The following label is located on your computer.

- Use the Service Tag to identify your computer when you access Dell's online customer service support or Dell's Toll Free Technical Support Centre.
- Enter the Express Service Code or Asset Tag Number to direct your call when contacting customer support.



Dell Support Website — [support.dell.com](http://support.dell.com)

**NOTE:** Select your region or business segment to view the appropriate support site.

Also note that in the event that the sticker is inadvertently removed the following are other options that may be used to determine the Service Tag Number.

Product	Service Tag Location
Desktop or Workstation	On the back and or on the side panel
Server	On the back and or the side panel of the system
LCD	On the bottom left hand corner of the back of the unit
Printers	On the back of unit

## HOW TO DETERMINE SERVICE TAG NUMBER USING THE BIOS (B)

### STEPS

1. Power on Monitor
2. Power on System Unit
3. Press the F2 Function key (*when the keyboard lights up on booting*).
4. Select System Information by scrolling down. *By Default System Info is selected. To the right of this you will find the SERVICE TAG NUMBER. Below that is the EXPRESS SERVICE CODE.*

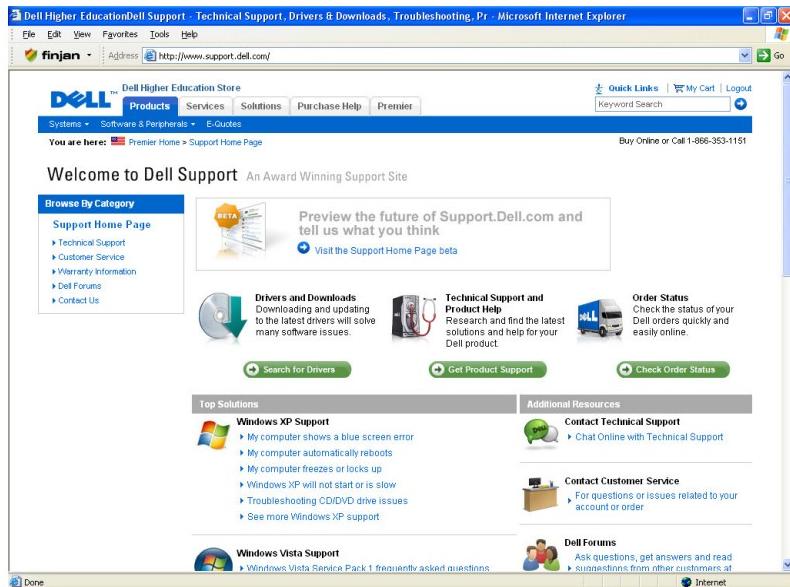
**NB –** *The SERVICE TAG NUMBER and EXPRESS SERVICE CODE is required by DELL for logging service calls.*

## HOW TO LOG A WARRANTY CALL

1. Dial **1-800-682-3639**
2. Press 1 – To continue this menu in English press 1
3. If you have a pin number please dial the code now
4. To Dial an extension please press 1
5. To make a purchase or for pricing information press 2
6. **If you need technical support for your dell computer press 3**
  - a. To enter an extension number or pin press 1
  - b. For desktop PC's, portables, workstations, peripherals or printers press 2
    - i. For Technical Support for your business press 1
    - ii. For information on battery recall and replacement press 5
      1. For desktop press 1
      2. For laptops press 2
  - c. **For workstations press 3**
  - d. For Dell computers and peripherals press 4
    - a. For XPS desktops press 1
    - b. For Dimension or Inspiron Desktop press 2
    - c. **For Optiplex or Vostro Desktop press 3**
    - d. You will hear 2 tones followed by a brief delay
7. A DELL representative will answer
8. Identify yourself giving details such as
  - a. Your name
  - b. Your position
  - c. Your company
  - d. Where you are calling from e.g. Jamaica
9. You will be asked if you are tracking the status of a previously logged service call or if this is a new service incident
10. You will be asked for your service tag number. Be very clear (English is not usually the mother tongue of the service call technician) Ask them to repeat the number in case the number is not correctly logged. This step is extremely important and critical
11. A request will be made for your email address.
12. A request will also be made for your telephone number (As a frequent caller they would have information stored about your particulars in a database). The DELL technicians usually check this.
13. You will be given a tracking number. (Please repeat with the Dell representative to ensure that the number is correct).
14. Information is sent to you via email with all the details outlined in the conversation

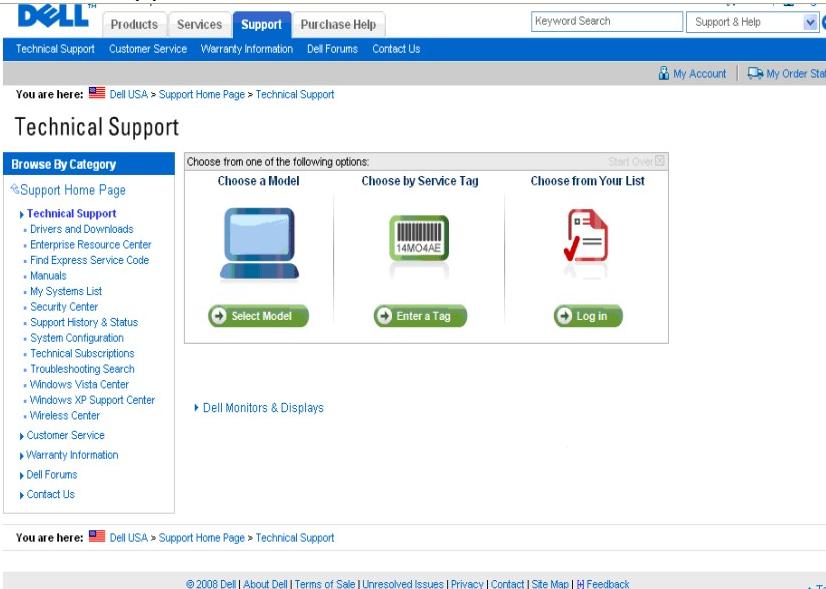
## HOW TO ACCESS THE DELL WEBSITE for Service, Maintenance, Warranty and Upgrade

### 1. Type [www.support.dell.com](http://www.support.dell.com)

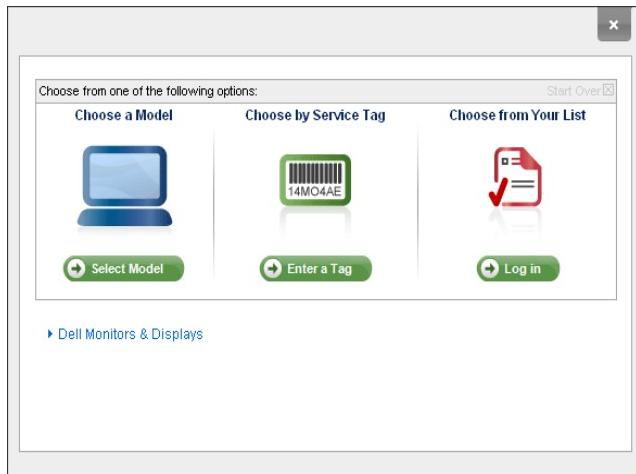


2. Select equipment you need to be serviced, maintained, upgraded or warranty. Eg, Laptop, Desktops, Servers or Printers. ***Please be armed with the SERVICE TAG NUMBER or EXPRESS SERVICE CODE – only applicable for PC's and laptops.***

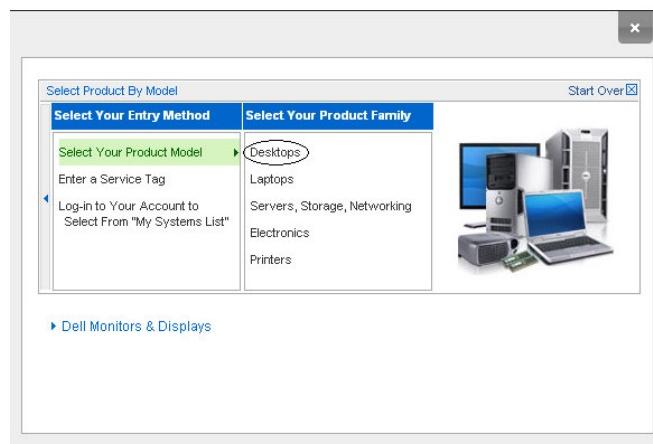
### 3. Select “Technical Support”



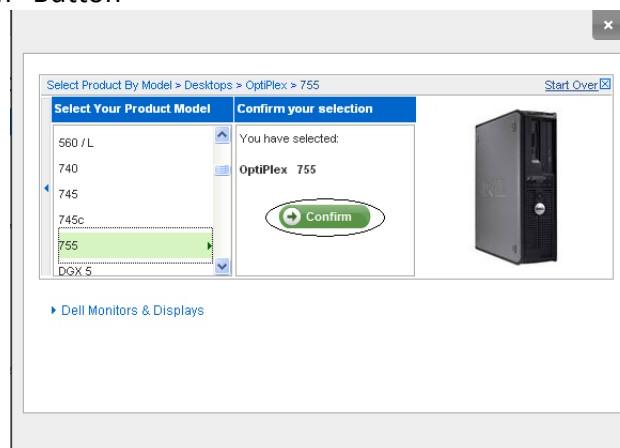
### 4. Click “Select Model”



**5. Select “Desktop”**



- 6. Select “Optiplex”**
- 7. Select “755”**
- 8. Click the “Confirm” Button**



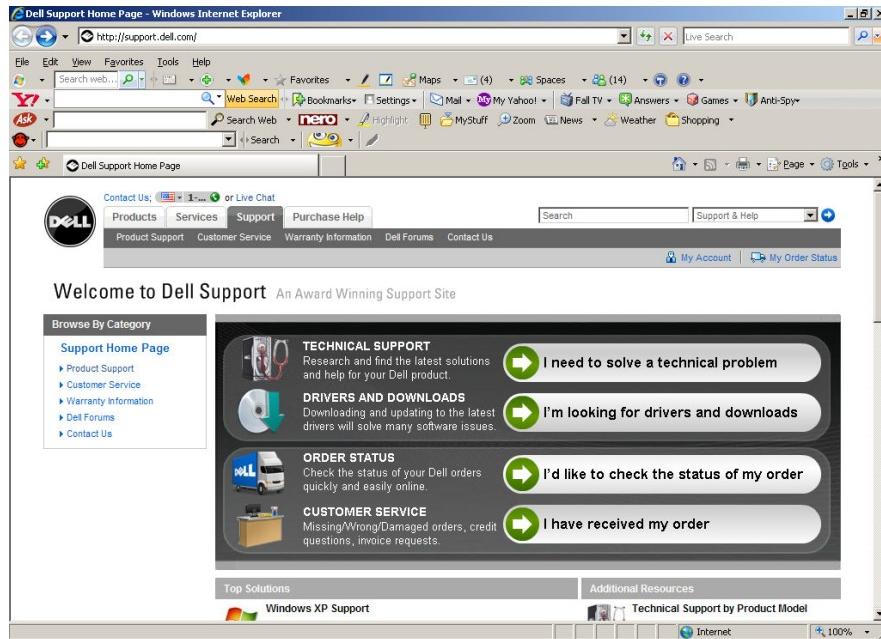
You may now select any of the following options:

- Drivers and Downloads
- Parts and Upgrade
- Manuals
- System Configuration Information
- 

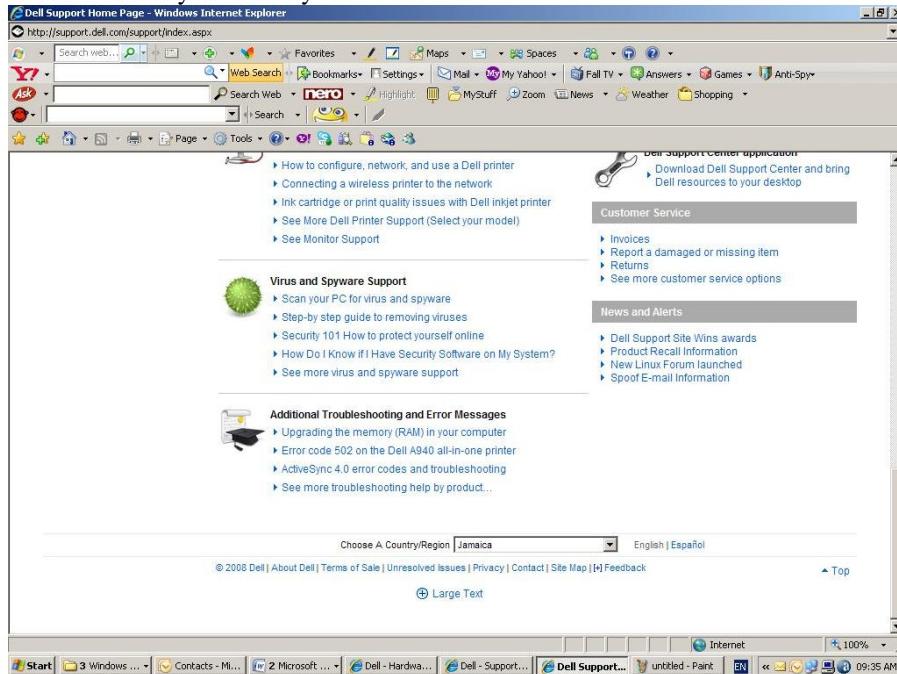
The screenshot shows a Microsoft Internet Explorer window displaying the Dell Technical Support website. The address bar shows the URL: [http://support.dell.com/support/topics/global.aspx/support/product\\_support/product\\_support\\_central?~ck=ln&c=us&l=en&hki=0&s=gen&SystemID=PLX\\_J](http://support.dell.com/support/topics/global.aspx/support/product_support/product_support_central?~ck=ln&c=us&l=en&hki=0&s=gen&SystemID=PLX_J). The page title is "Dell - Technical Support - Microsoft Internet Explorer". The main content area is titled "Technical Support" and features a product image of an OptiPlex 755 desktop computer. It includes links for "Drivers & Downloads", "Parts & Upgrades", "Manuals", and "System Configuration Information". On the left, there's a sidebar titled "Browse By Category" with links for Support Home Page, Technical Support (Drivers and Downloads, Enterprise Resource Center, Find Express Service Code, Manuals, My Systems List, Security Center, Support History & Status, System Configuration, Technical Subscriptions, Troubleshooting Search, Windows Vista Center, Windows XP Support Center, Wireless Center), Customer Service (Warranty Information, Dell Forums), and Contact Us.

## How to Navigate to the Dell Chat

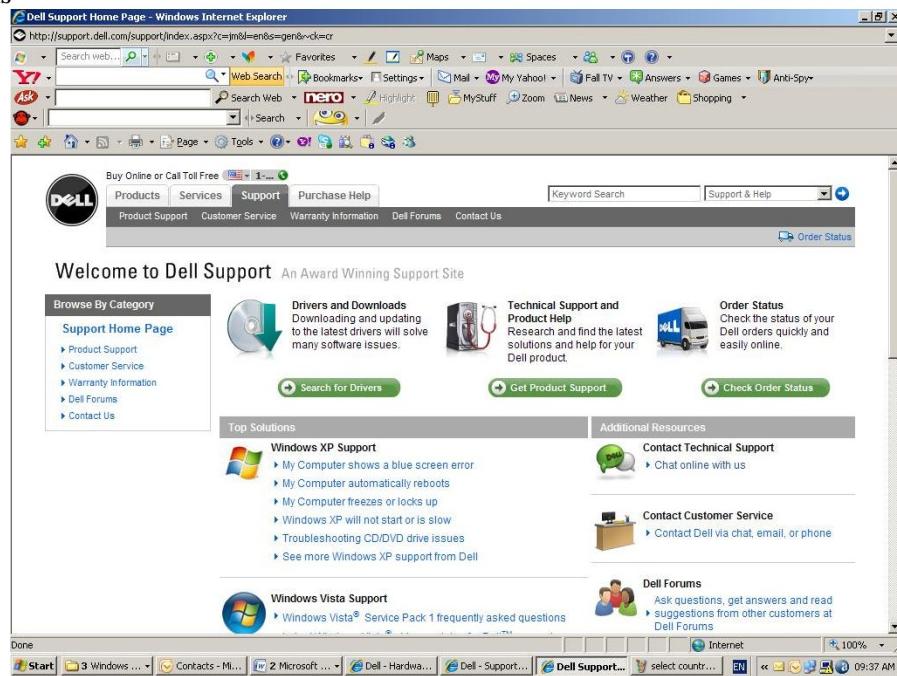
1. Browse to <http://support.dell.com>



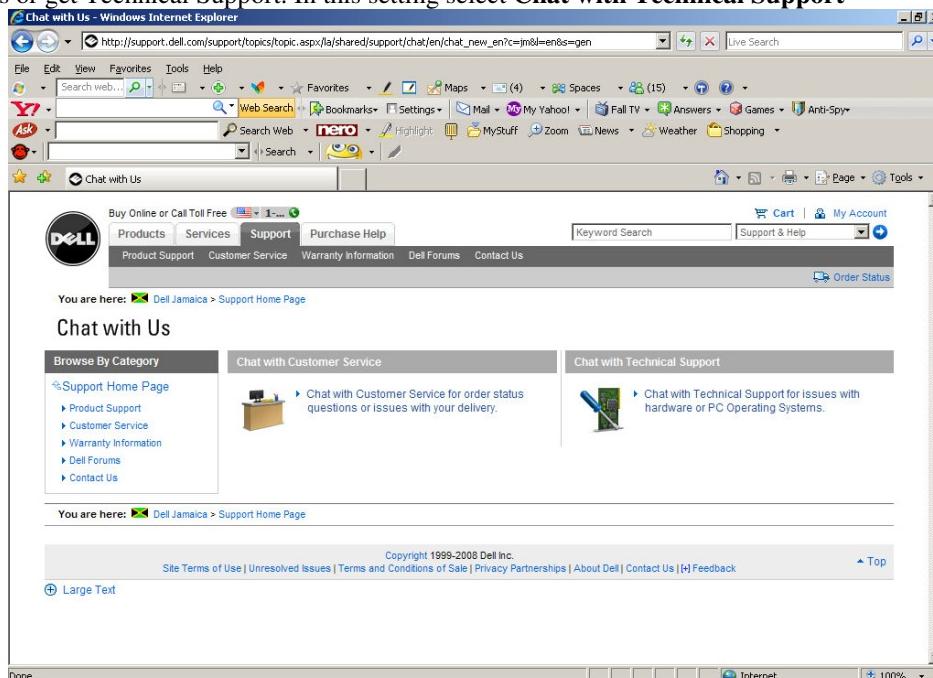
2. Scroll down and select your country “Jamaica”



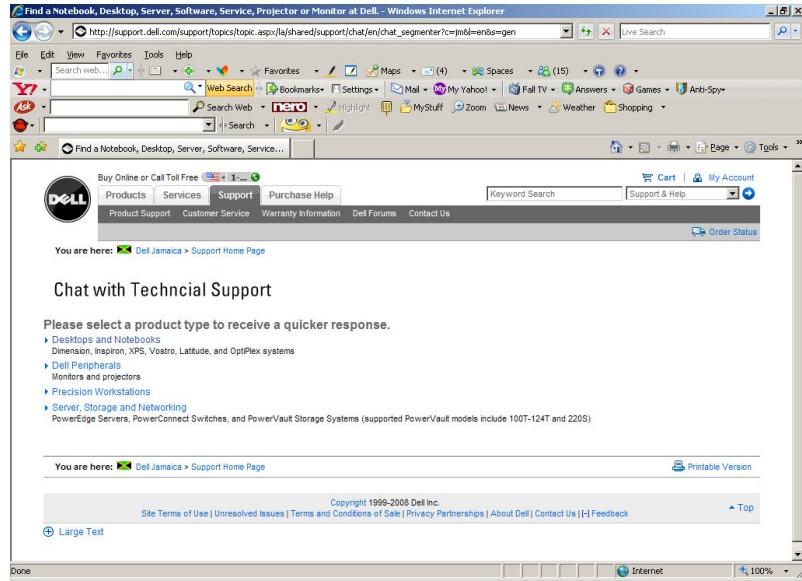
3. Scroll up to **Contact Technical Support** over the **Additional Resources** column and select **Chat Online with us**



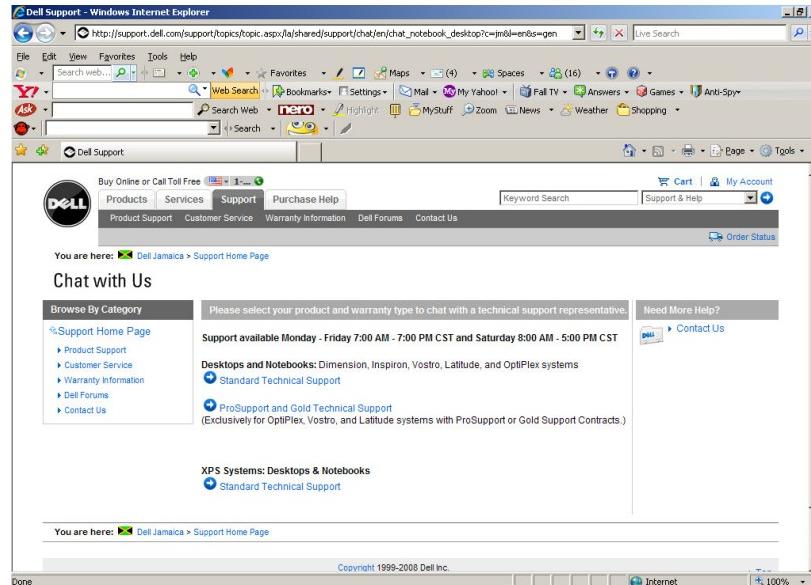
4. Here you have the option to chat with a dell customer service representative to follow up on your order status or get Technical Support. In this setting select **Chat with Technical Support**



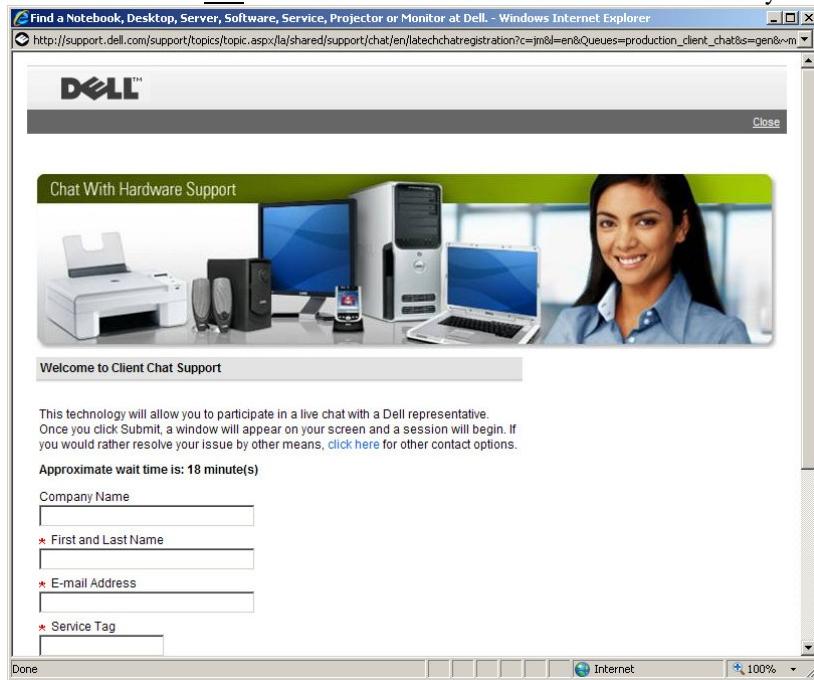
5. Select the product type of the equipment in question for support from the Dell Customer Service Representative



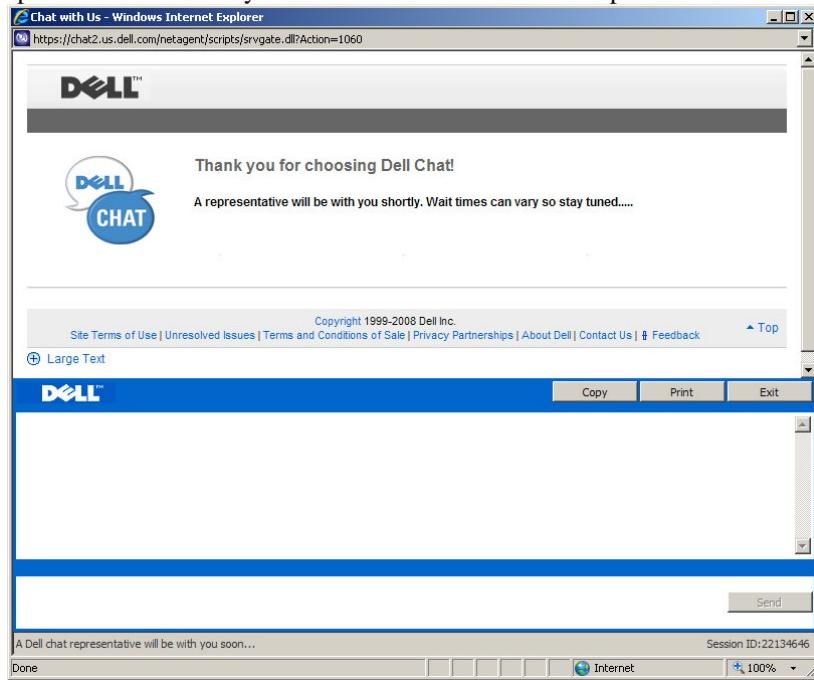
6. **For illustration:** On selecting the Desktops and Notebooks option the next page is to select your warranty type.



7. On selecting the **Standard Technical Support** link the next page just fill in the requisite information in the textboxes and click continue. Nb. The asterisk means this information is mandatory to continue.



8. Here a popup window will allow you to chat with a Dell Service Representative



## **How to Install the DNS and Active Directory**

Before the DNS and Active Directory installation commences the Server name is assigned;

### **To name the Server**

Right click on My Computer

Select Properties and go to the Computer Name tab. Select Change and type the Server name (DC-SVR-ServiceTag#)

Select Ok. Server will reboot.

To install DNS and Active Directory using the manual tools

1. Click the Start button; click Run, type DCPROMO, and then click OK.
2. When the Active Directory Installation Wizard appears, click Next to begin the installation.
3. After reviewing the Operating System Compatibility information, click Next.
4. Select Domain controller for a new domain (default), and then click Next.
5. Select Domain in a new forest (default), and then click Next.
6. For Full DNS name, type SchoolName-elj.edu, and then click Next. (This represents a Fully Qualified name.)
7. Click Next to accept the default Domain NetBIOS name of SchoolName-elj.edu. (NetBIOS names provides for down-level compatibility.)
8. On the Database and Log Folders screen, point the Active Directory Log Folder to L:\Windows\NTDS, and then click Next to continue.
9. Leave the default folder location for Shared System Volume, and then click Next.
10. On the DNS Registration Diagnostics screen, click Install and configure the DNS Server on this computer. Click Next to continue.
11. Select Permissions compatible only with Windows 2000 or Windows Server 2003 (default), and then click Next.
12. Type password for Restore Mode Password and Confirm password, and then click Next to continue.

Note: Production environments should employ complex passwords for Directory Services Restore passwords.



Figure 3. Summary of the Active Directory Installation Options

13. Figure 3 represents a summary of the Active Directory installation options. Click Next to start the installation of Active Directory. If prompted, insert the Windows Server 2003 installation CD.
14. Click OK to acknowledge the warning of having a dynamically assigned IP address for a DNS Server.
15. If you have more than one network interface, select the network interface from the **Choose Connection** drop-down list, and then click Properties.
16. Under the This connection uses the following items section, click Internet Protocol (TCP/IP), and then click Properties.
17. Select Use the following IP address, and then type the desired IP address. Press the Tab key twice, and then type desired IP address for the Default gateway. Type 172.16.x.2 for the Preferred DNS Server, and then click OK. Click Close to continue.
18. Click Finish once the Active Directory Installation Wizard is finished.
19. Click Restart Now to reboot the computer.

## HOW TO INSTALL DHCP USING WINDOWS

**Warning:** The following section will configure your Server as a DHCP Server. If this Server resides on a production network, the Server may distribute IP address information that might not be valid on the network. Microsoft recommends that these exercises be completed on an isolated network.

1. Within the Manager Your Server page, click Add or remove a role.

*Note: If you closed the Manage Your Server page you can start the Configure Your Server wizard from Administrative Tools. If you select this option the following steps may differ slightly.*

2. After the Configure Your Server wizard appears, click Next.
3. Click Custom configuration, and then click Next.
4. Under Server Role, click DHCP Server, and then click Next.
5. Review the Summary of Selections, and then click Next to begin the installation.
6. When the New Scope Wizard appears, click Next to define a DHCP scope.
7. For Name, type DHCP. Leave the description blank, and then click Next.
8. Enter a Start IP address of 172.16.x.1 and enter 172.16.x.254 for the End IP address. Click Next.
9. Exclusions will not be defined at this time. Click Next to continue the installation.
10. To accept the default Lease Duration, click Next.
11. To set DHCP Options, click Next.
12. On the Router (Default Gateway) screen, type 172.16.x.1 for IP address, click Add, and then click Next.
13. For Parent Domain on the Domain Name and DNS Server screen, type SchoolNameH-elj.edu  
For IP address, type 172.16.x.2, click Add, and then click Next.
14. Click Next as WINS Servers will not be utilized in this environment.
15. Click Next to Activate Scope.
16. Click Finish twice.
17. Close the Manage Your Server screen.

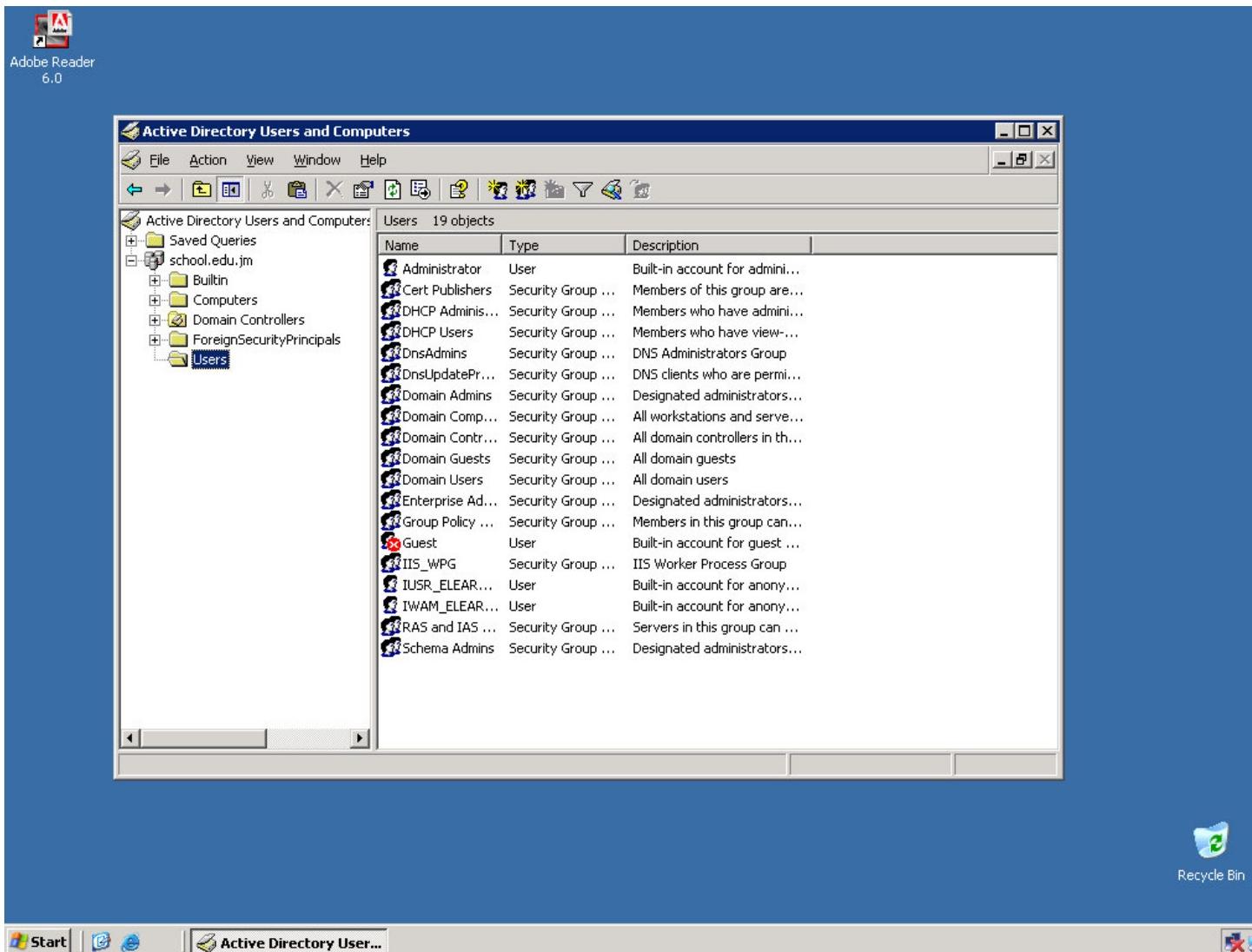
Configuring Your Server as a Domain Controller

### To authorize the DHCP Server

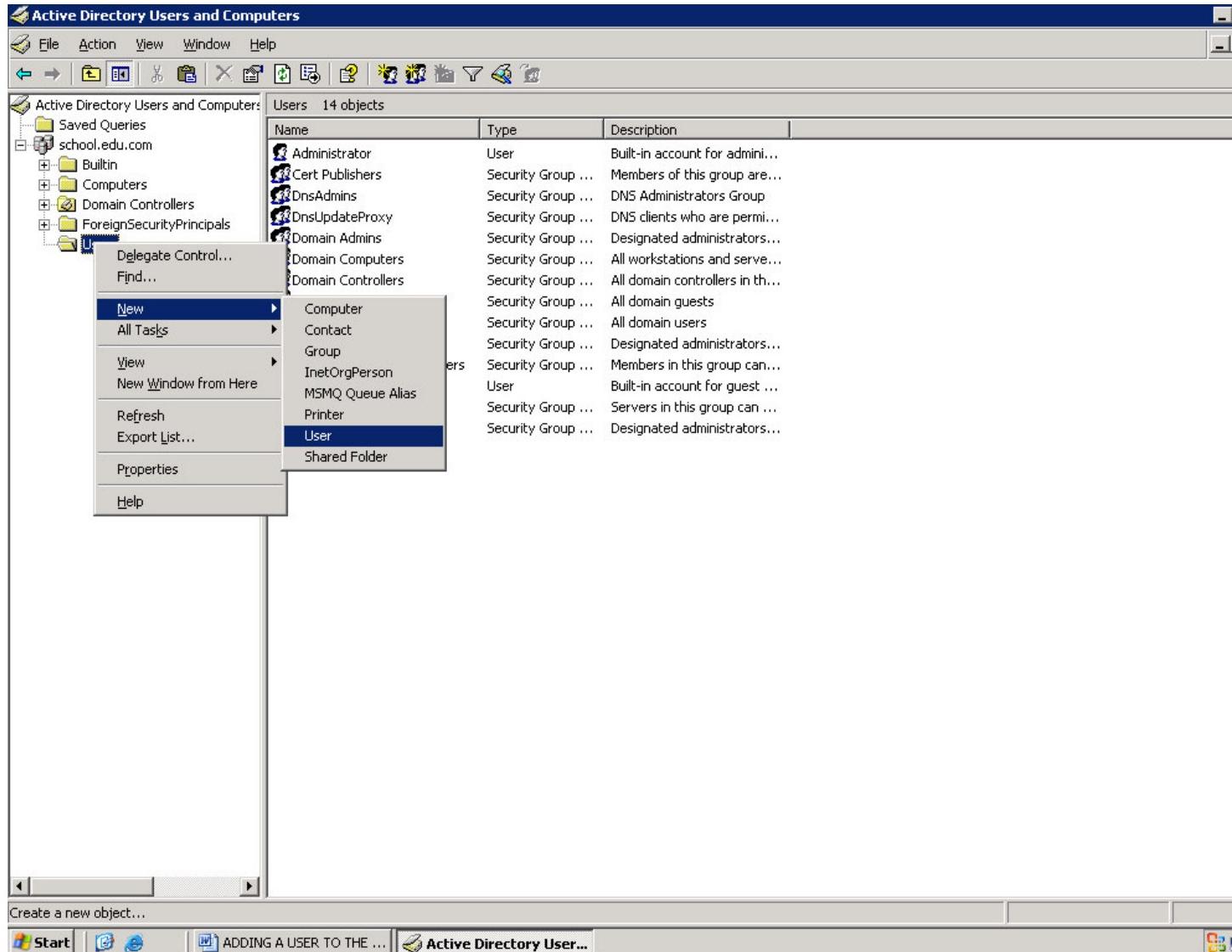
1. After the computer reboots, press Ctrl+Alt+Del and log on to the Server as administrator.
2. Click the Start menu, select Administrative Tools, and then click DHCP
3. Click SchoolNameH-elj.edu; Right click SchoolNameH-elj.edu and then click Authorize
4. Close the DHCP management console

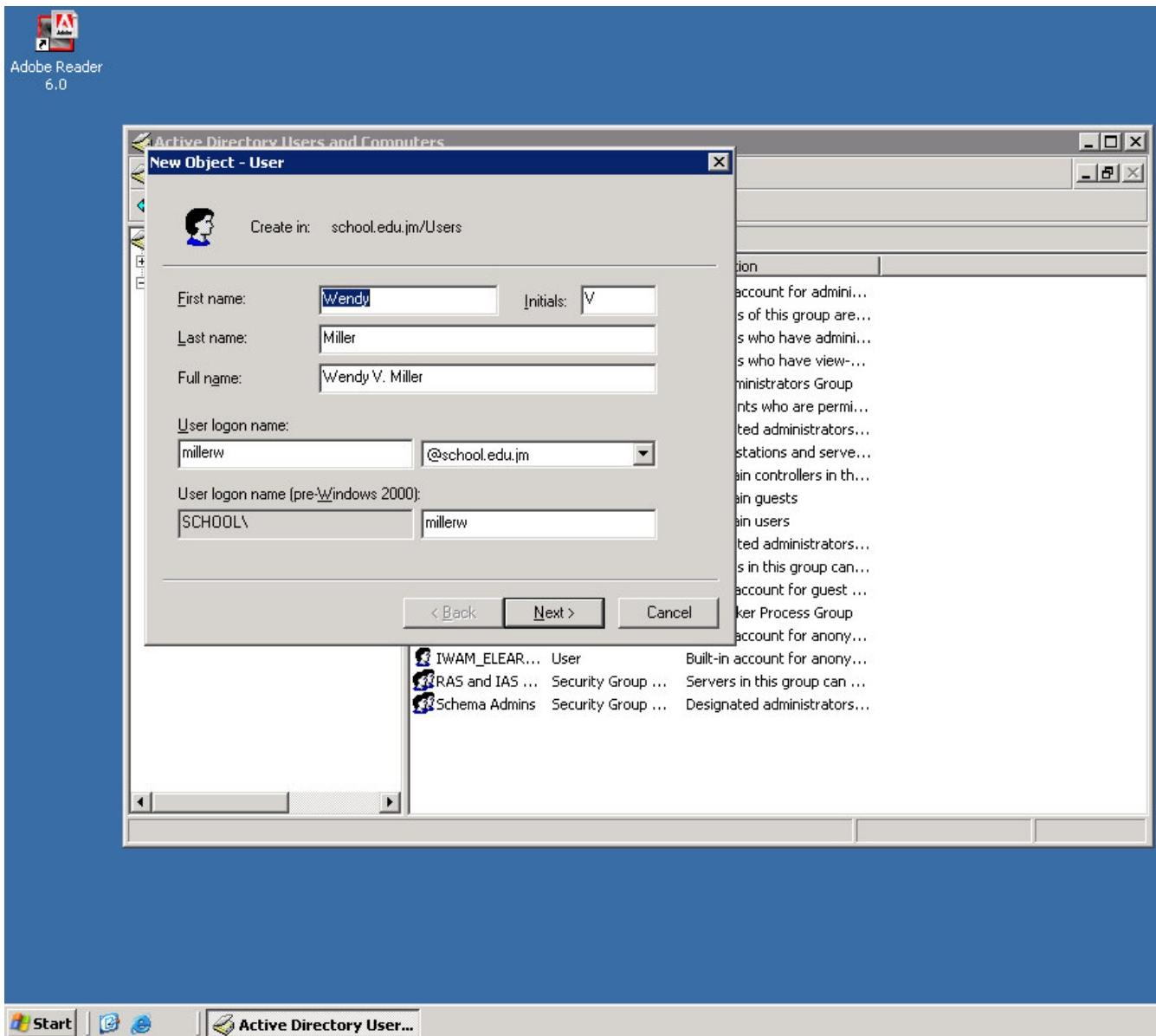
## ADDING A USER TO THE DOMAIN

1. Click on "Start"
2. Navigate to "Administrative Tools"
3. Navigate to "Active Directory Users and Computers"
4. Expand the Fully Qualified Domain Name
5. Select "Users"



6. Right Click on "Users"
7. Go to "New"
8. Click on "User"

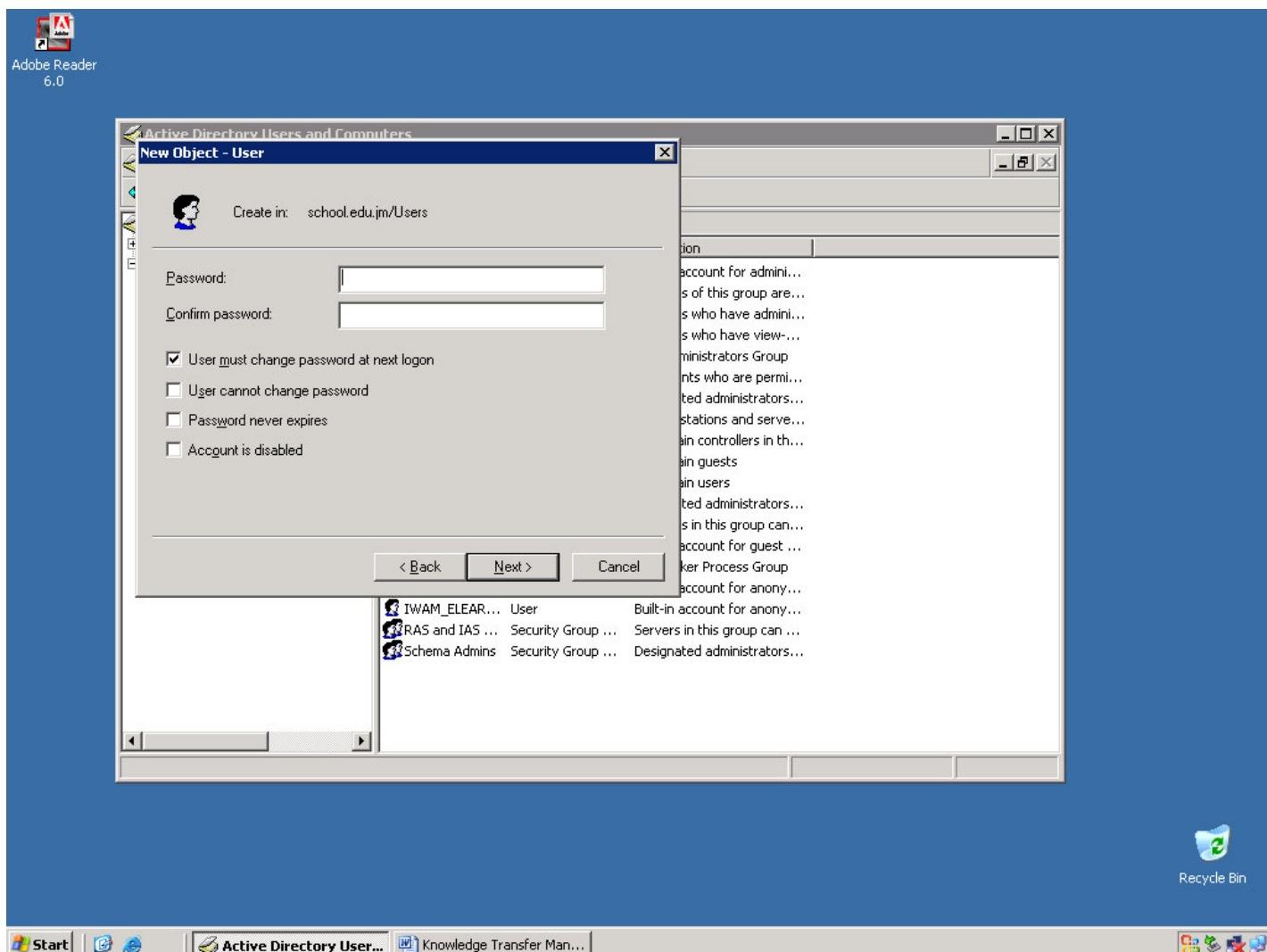




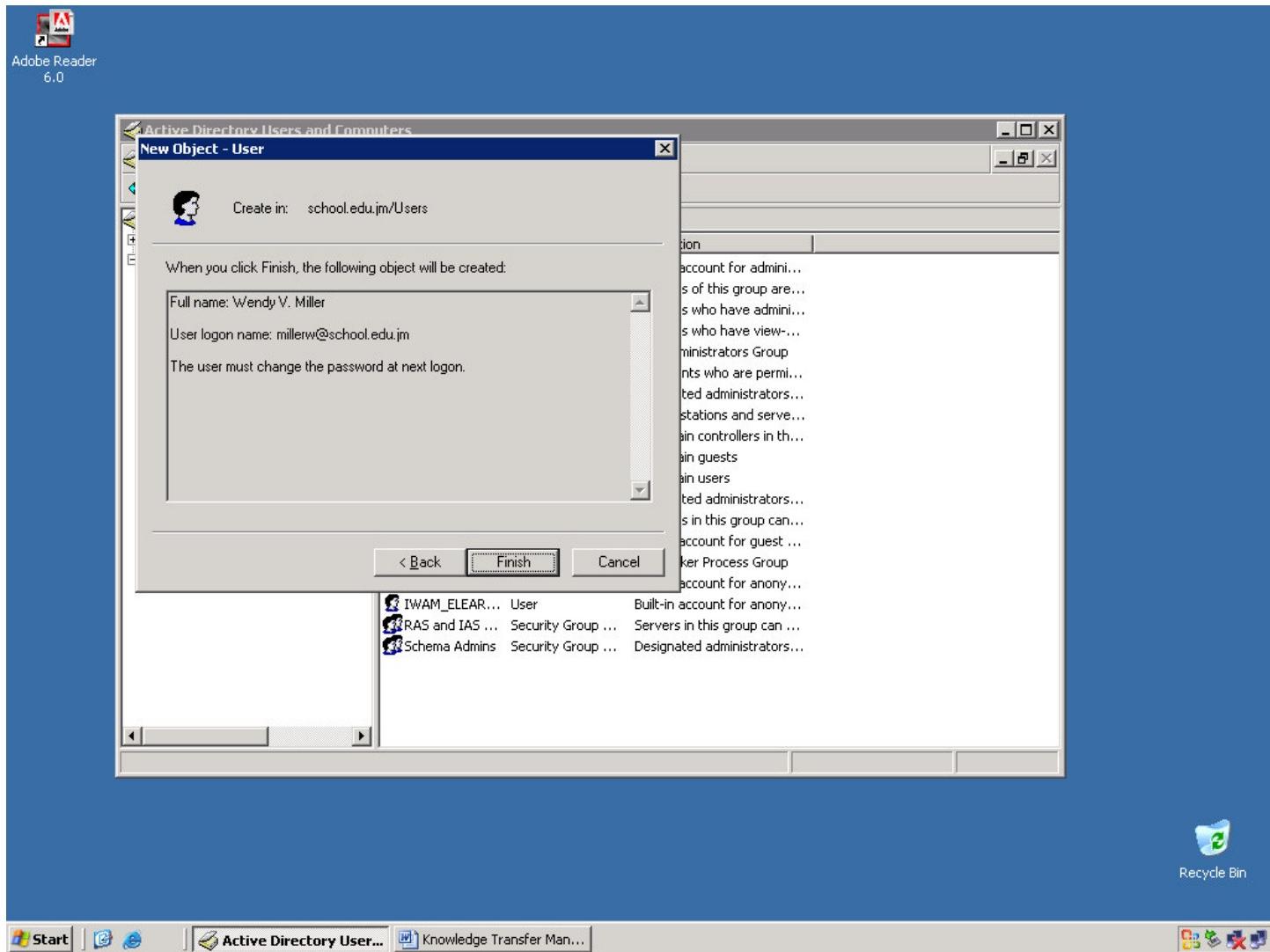
9. Enter the particulars for the new user

- a. First name
- b. Middle
- c. Last name
- d. Full name
- e. Logon name – This should be supplied by e-learning and be of a certain standard. Logon name will be attached to the school's domain and create an e-mail address.

10. Click “Next”



11. Enter a password for the new user that you just created. (You have the option to leave it blank but allow users to change password at next login).



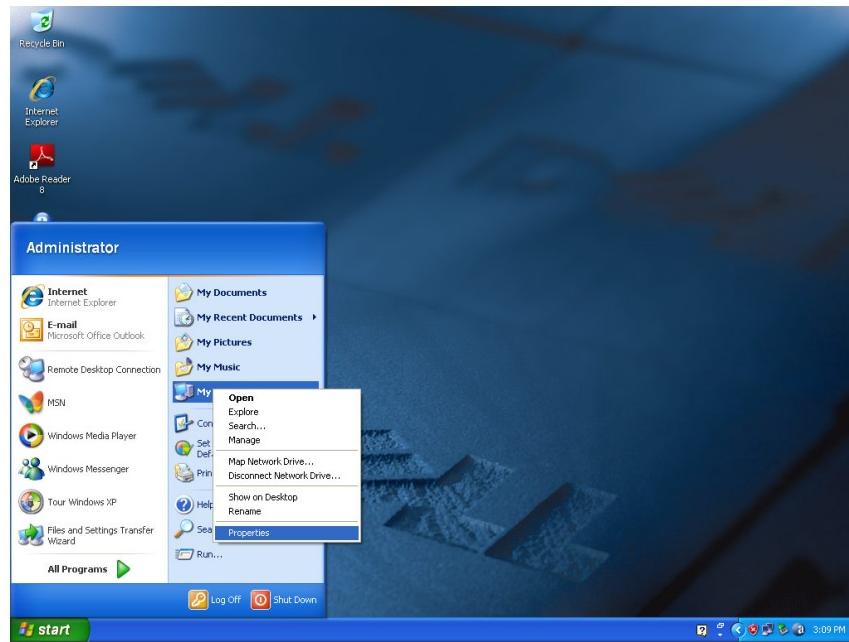
12. Click "Finish" to complete this process.

***Important to note.***

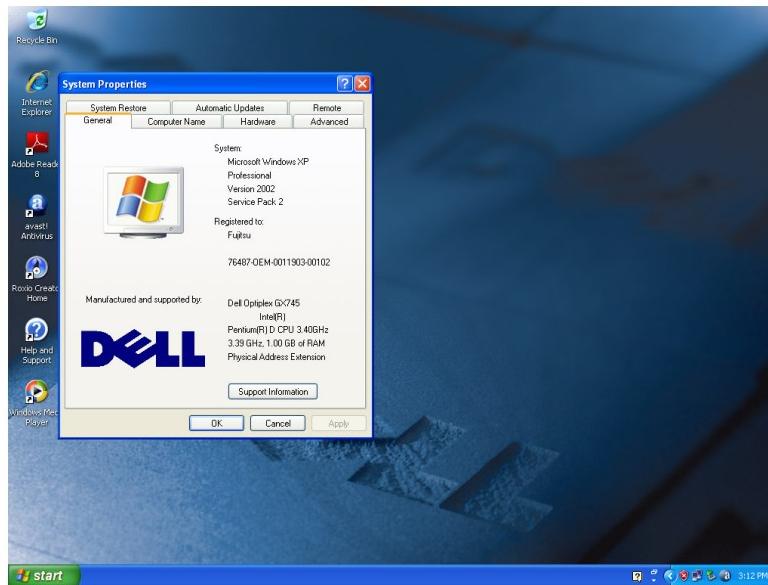
- By default a password must exceed 6 characters in length
- It cannot start with a numeric value
- A minimum of 24 passwords are remembered
- It only accepts complex passwords
  - Must include a number, capital letter and special character.

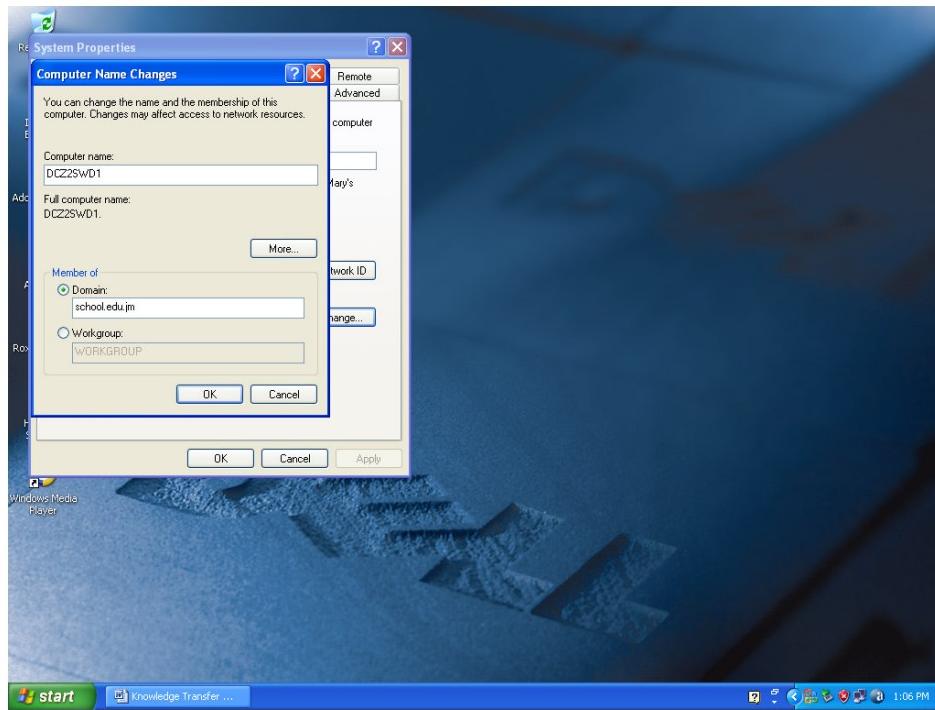
**JOINING A COMPUTER TO THE DOMAIN**

1. Click "Start"
2. Go to "All Programs"
3. Right Click "My Computers"
4. Scroll Down to "Properties"



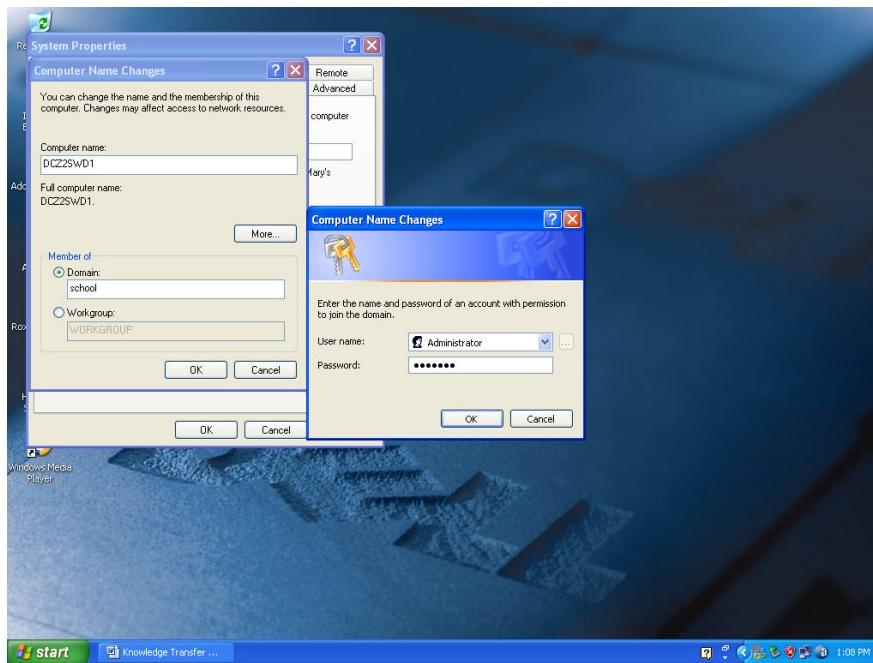
5. Click "Computer Name" button
6. Click "Change"





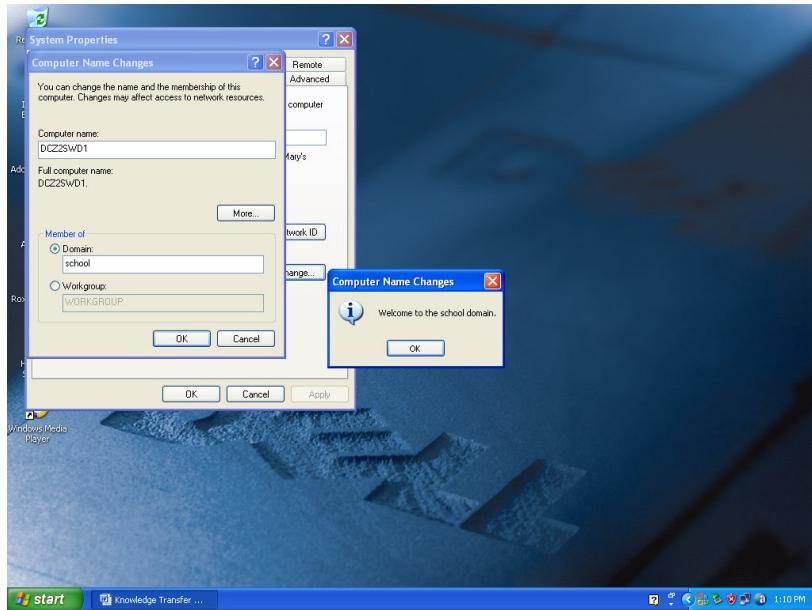
## 7. Click “Domain” and type **school**

You will be asked to enter the **Administrator** login and **password**.



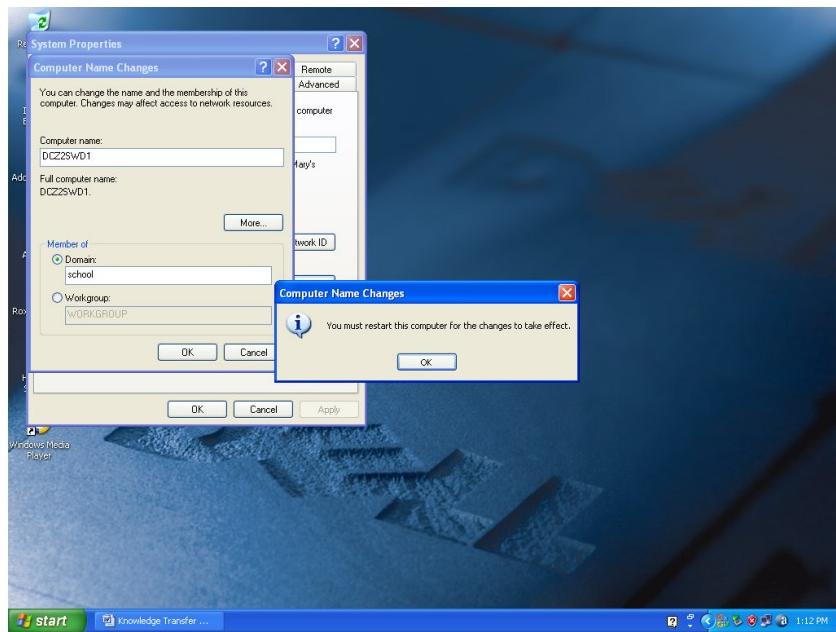
## 8. Click “OK”

A popup Window appears indicating that you have successfully added the new computer to the domain.

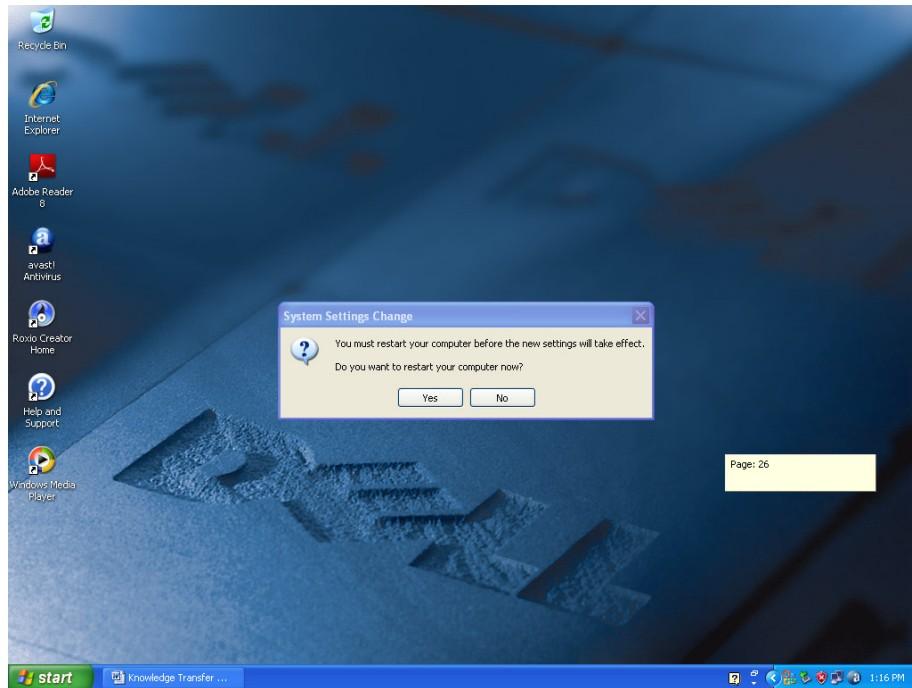


This process will take a few seconds. After which a screen will pop-up saying Welcome to **school** domain.

9. Click "OK"



You will now be asked to restart your computer in order for the adding of the computer to the domain to take full effect.



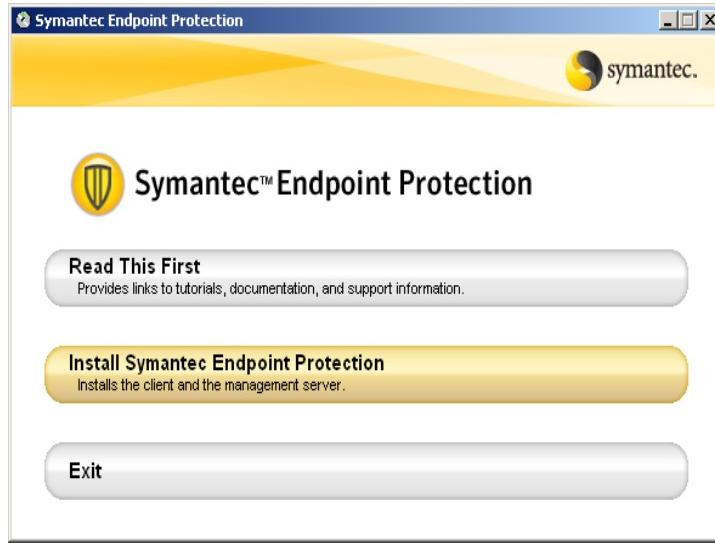
## SYMANTEC ENDPOINT PROTECTION 11.0 INSTALLATION AND CONFIGURATION

### To install Symantec Endpoint Protection Manager

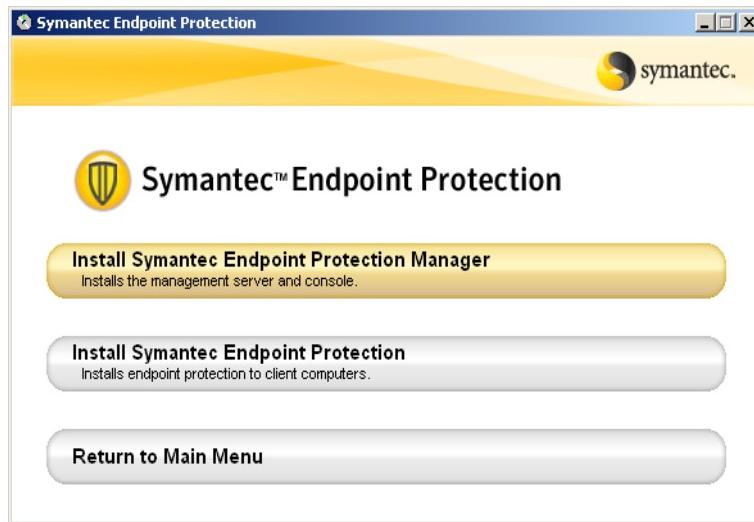
Insert the installation CD in the CD-ROM of the Server and start the installation.

In the installation panel, do one of the following:

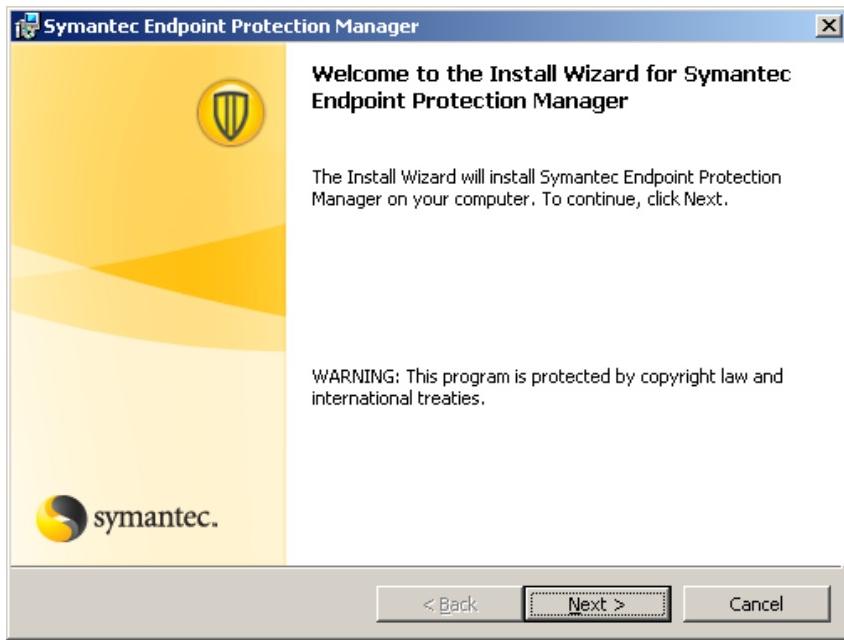
If you want to install Symantec Endpoint Protection, click **Install Symantec Endpoint Protection**.



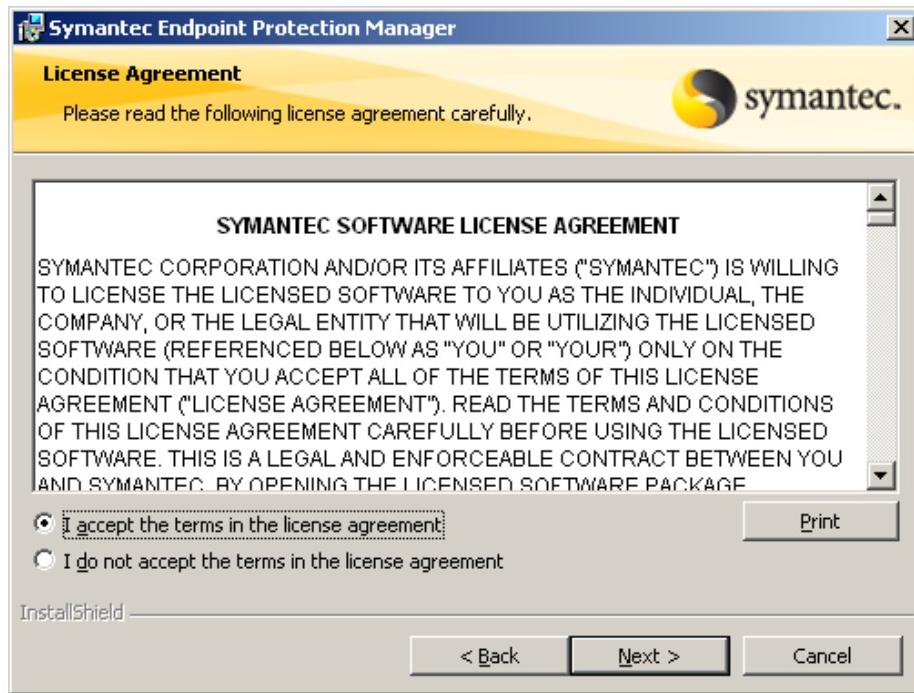
1. In the next installation panel, click **Install Symantec Endpoint Protection Manager**.



2. In the Welcome panel, click **Next**.



3. In the License Agreement panel, check **I accept the terms in the license agreement**, and then click **Next**.

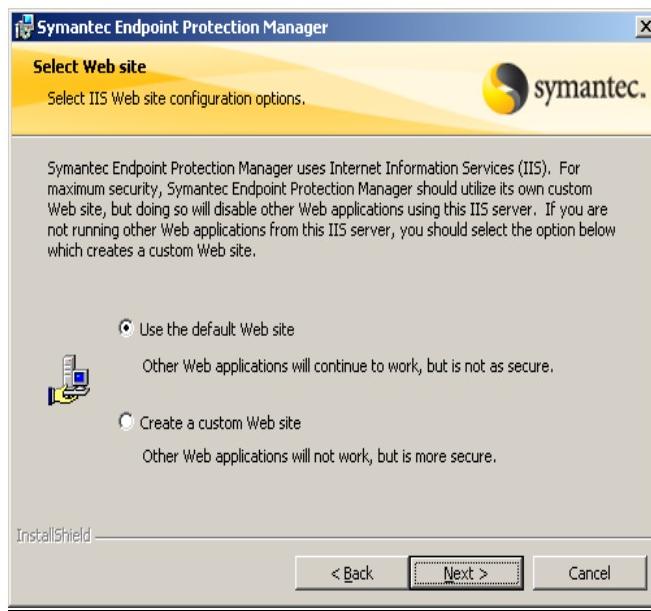


4. In the Destination Folder panel, accept or change the installation directory.



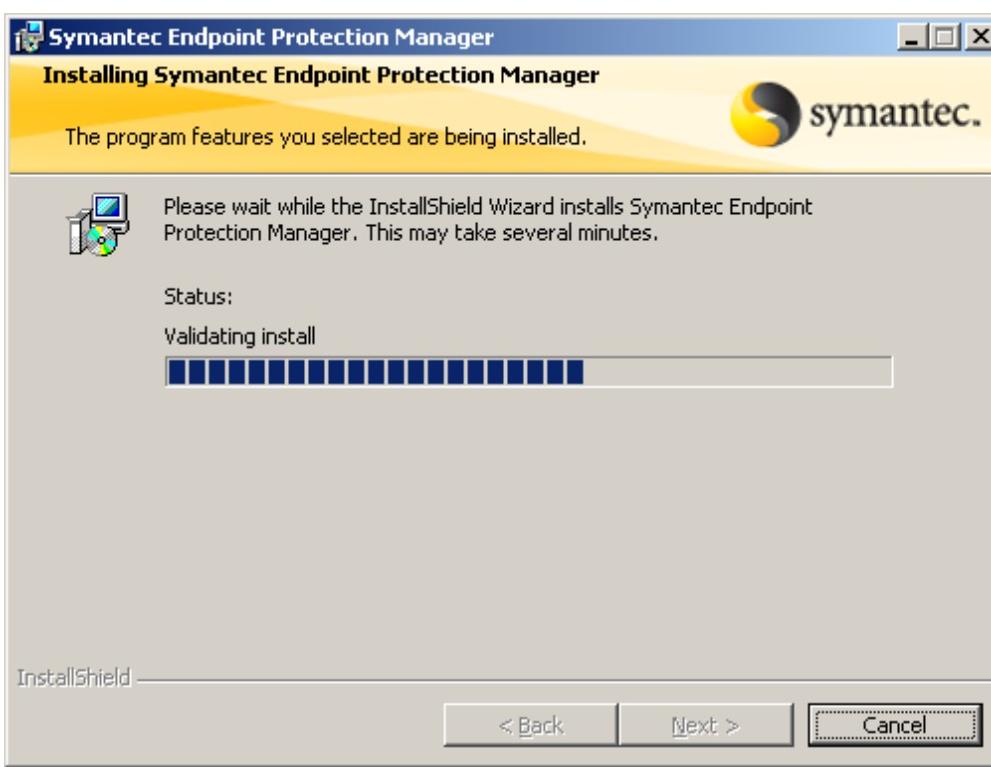
5. Do one of the following:

- To configure the Symantec Endpoint Protection Manager IIS Web as the only Web Server on this computer, check **Create a custom Web site**, and then click **Next**.

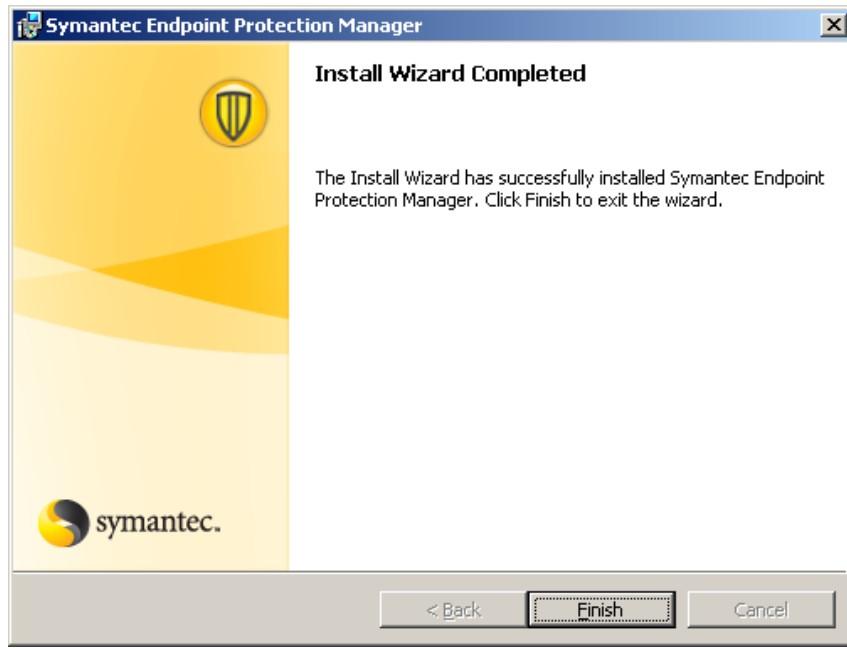


- To let the Symantec Endpoint Protection Manager IIS Web Server run with other Web Servers on this computer, check **Use the default Web site**, and then click **Next**.

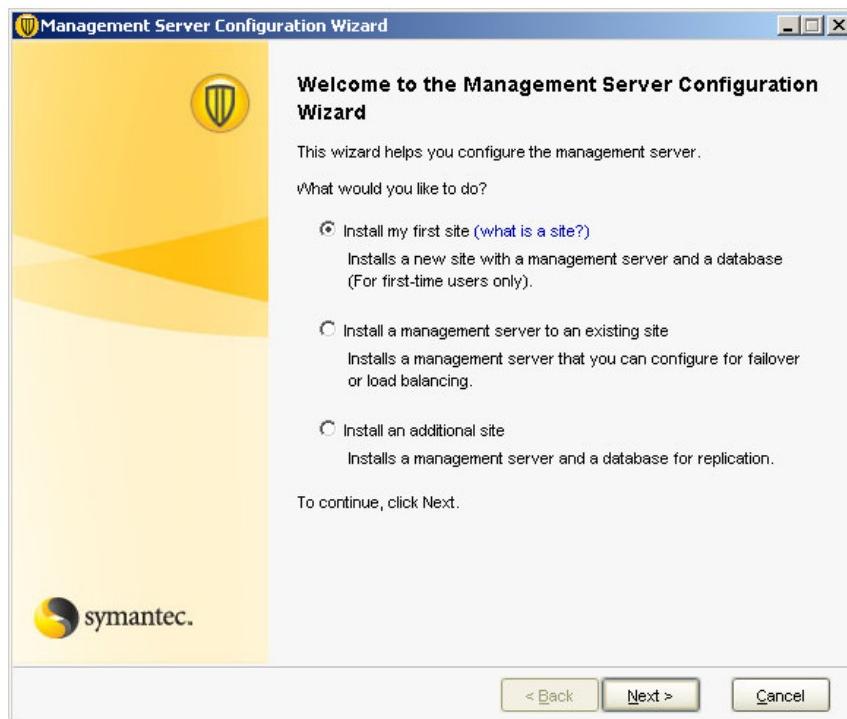
6. In the Ready to Install the Program panel, click **Install**.



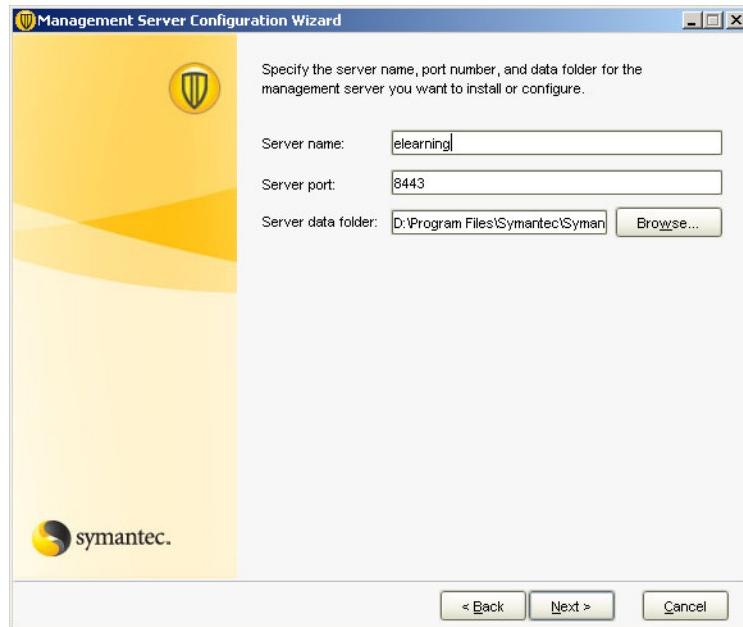
7. When the installation finishes and the Install Wizard Complete panel appears, click **Finish**.



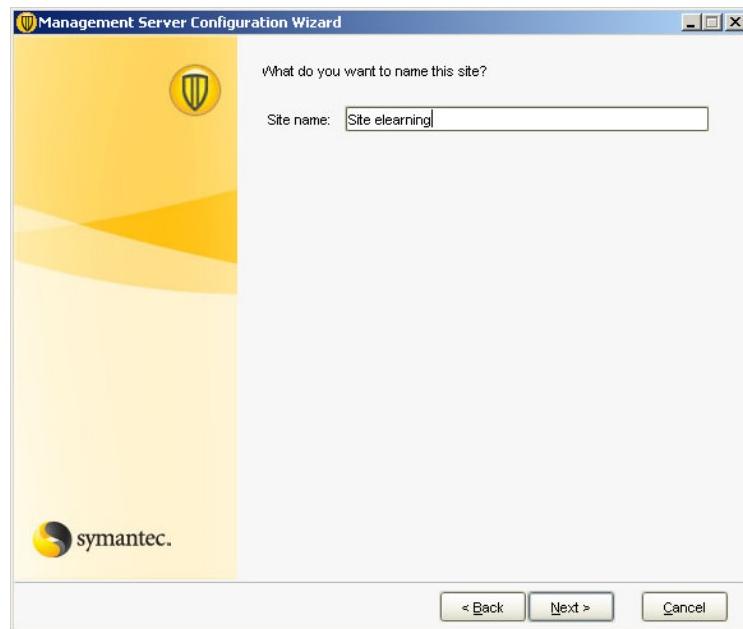
8. Wait for the Management Server Configuration Wizard panel to appear, which can take up to 15 additional seconds.
  - Keep the default settings to **install first site** and click **Next**



Specify the Server Name, Port Number and Data Folder. Keep the default settings then click **Next**



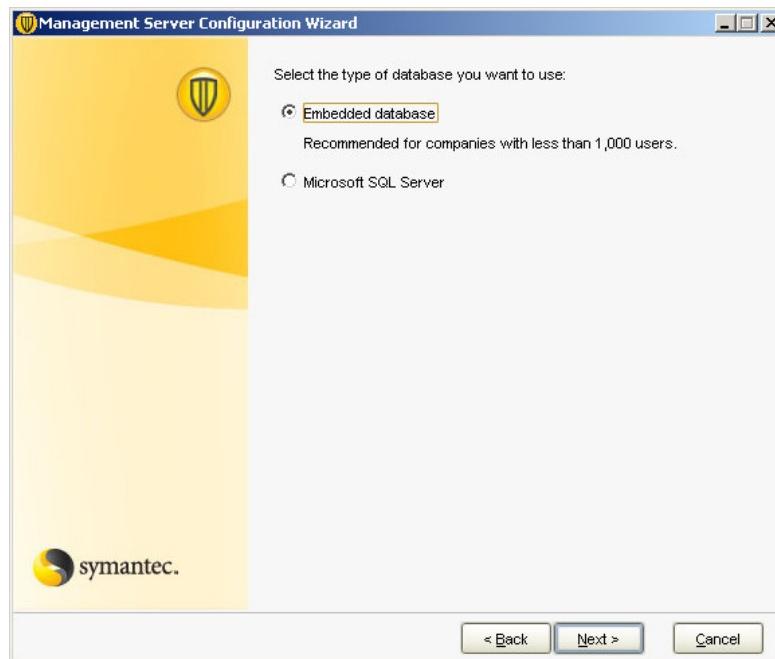
9. Keep the default Site Name. Click **Next**



10. Specify an encryption password and click **Next**

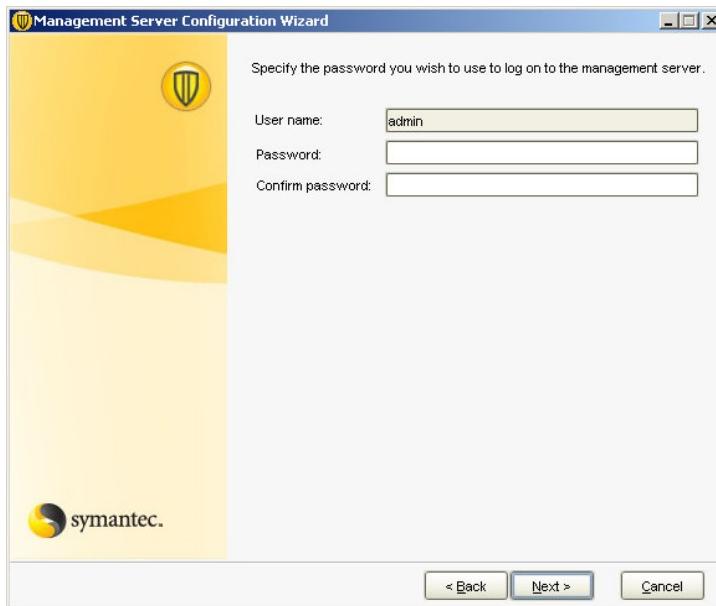


11. Select the type of database you want to use. In this case select the embedded database then click **Next**

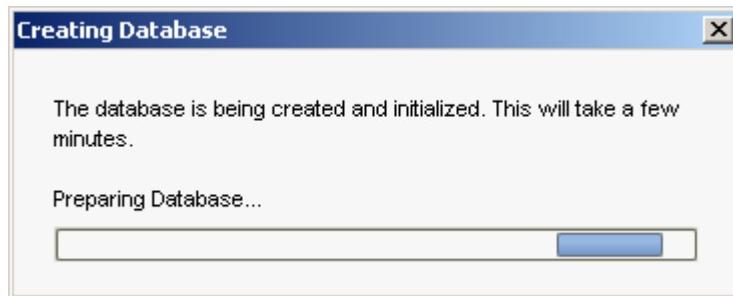


12. Specify the password you wish to use to log on to the management console and click **Next**.

**NB** The **User name** is by default **admin** and is un-editable at this point.



13. You will see this popup when database is being created and initialized.



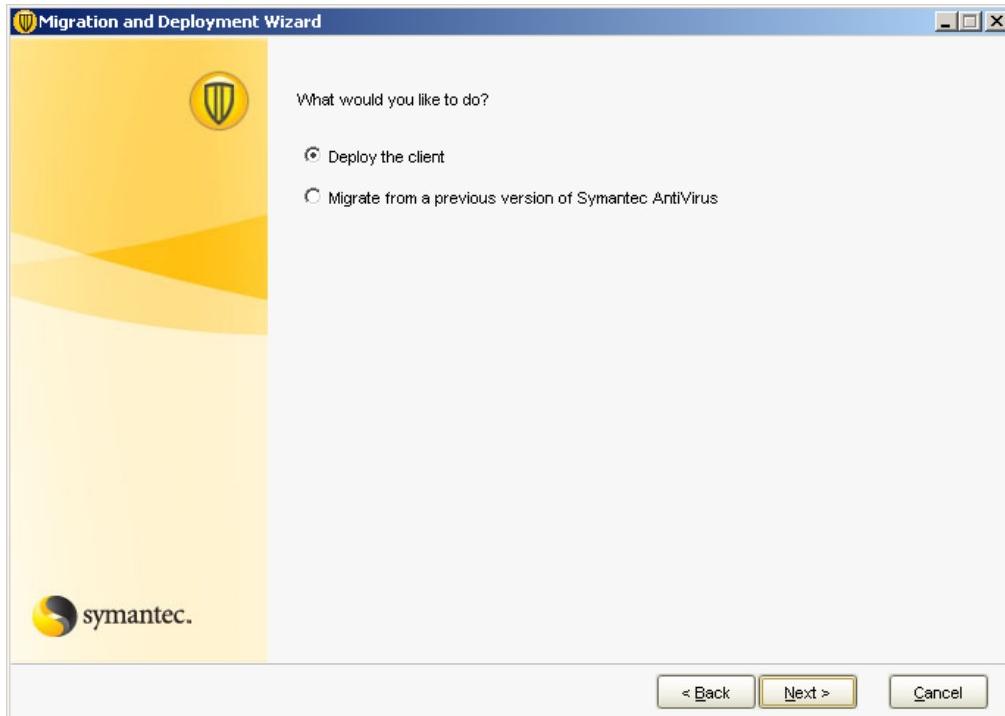
14. After the installation and configuration of the Management Server is complete, you are automatically prompted to run the Migration and Deployment wizard. This wizard can run at any time convenient to the user (Administrator). The default is selected as Yes, click **Finish**.



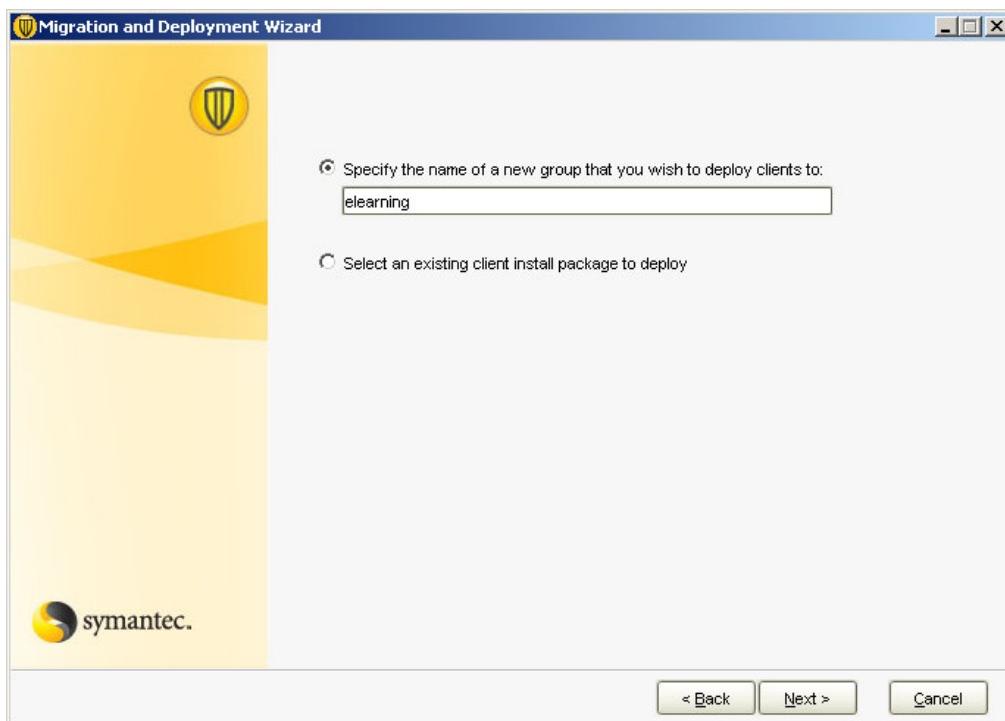
1. In the Welcome to the Migration and Deployment Wizard panel, click **Next**.

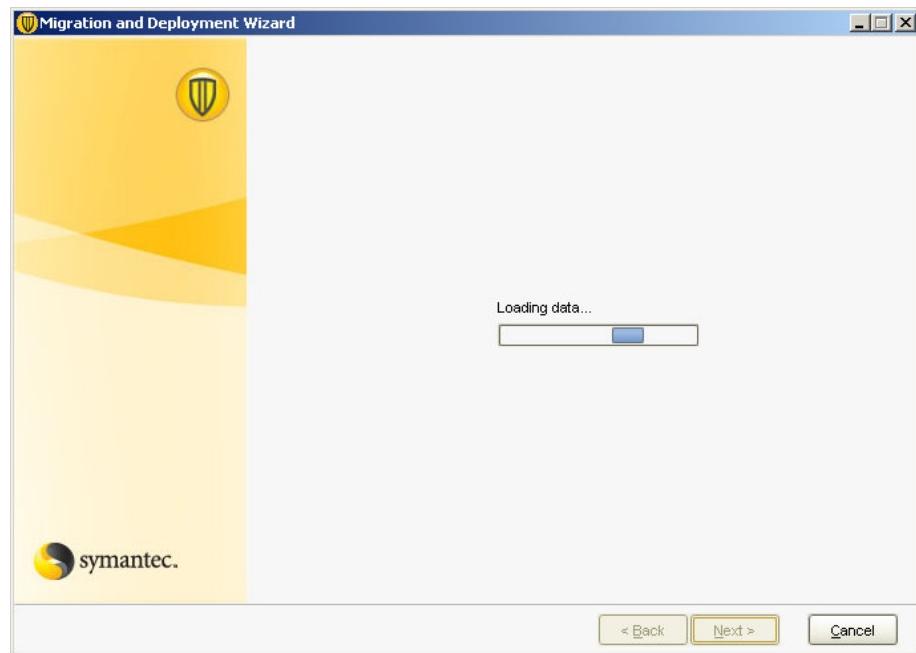


2. In the “What would you like to do” panel, check **Deploy the client**, and then click **Next**.

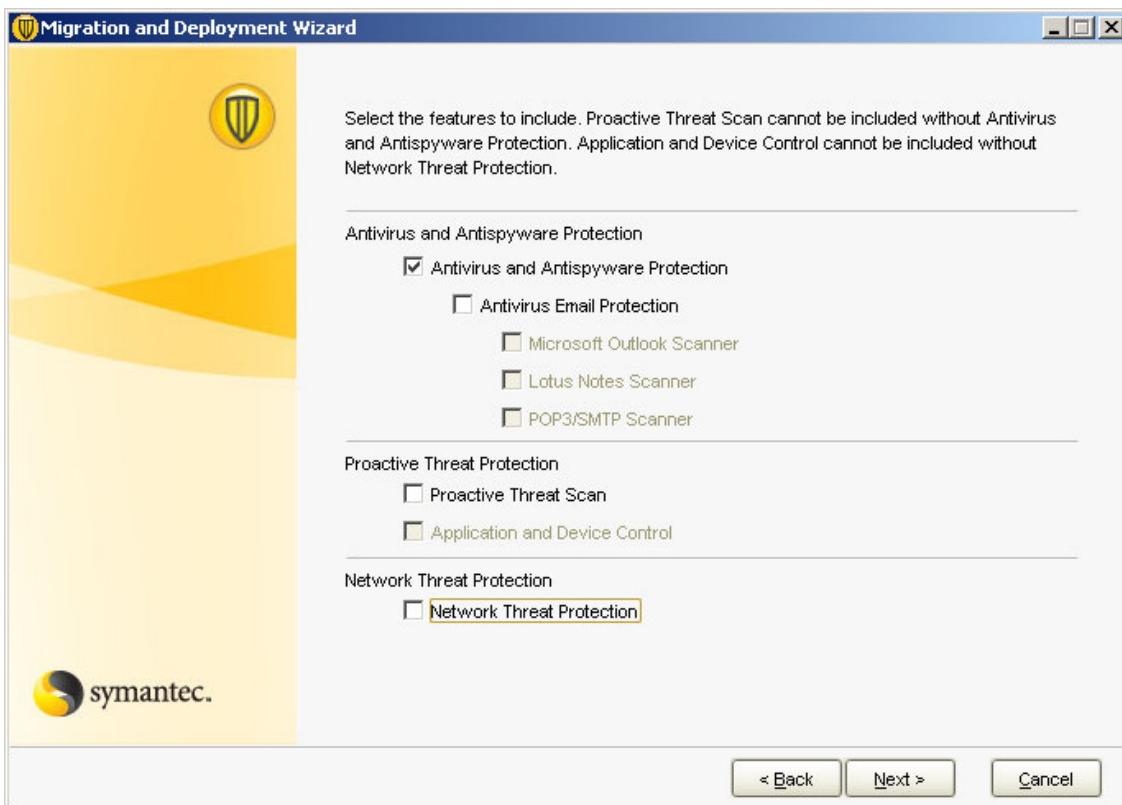


3. In the next unnamed panel, check **Specify the name of a new group that you wish to deploy clients to**, type a group name in the box, and then click **Next**.

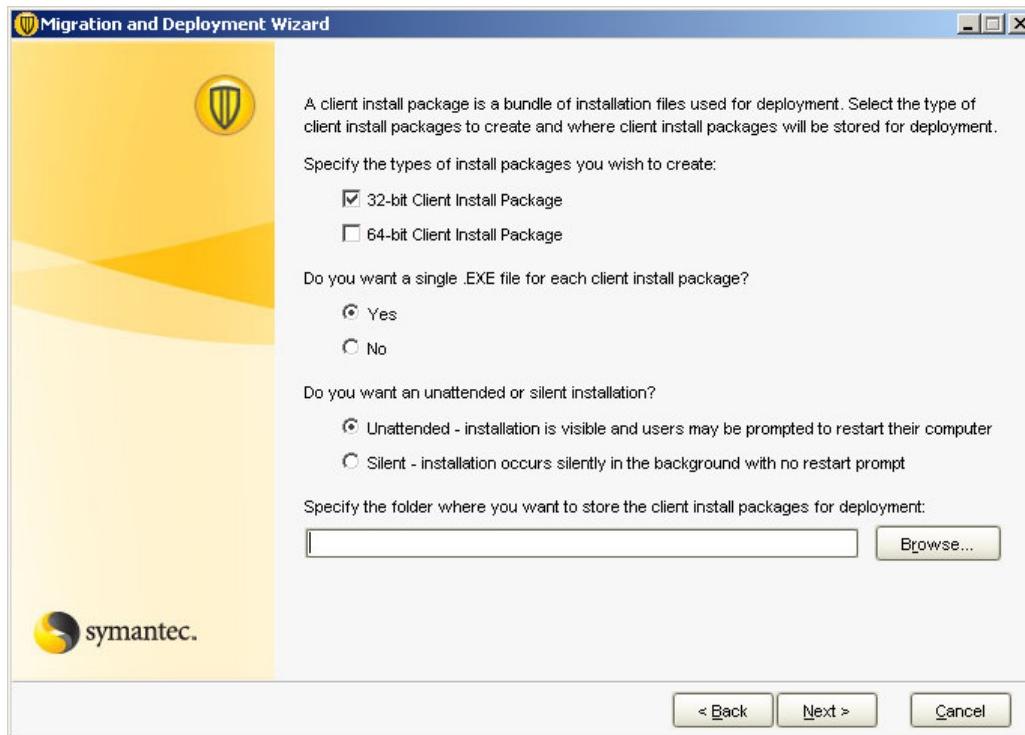




4. In the next panel, select the appropriate client software that you want to install, and then click **Next**.

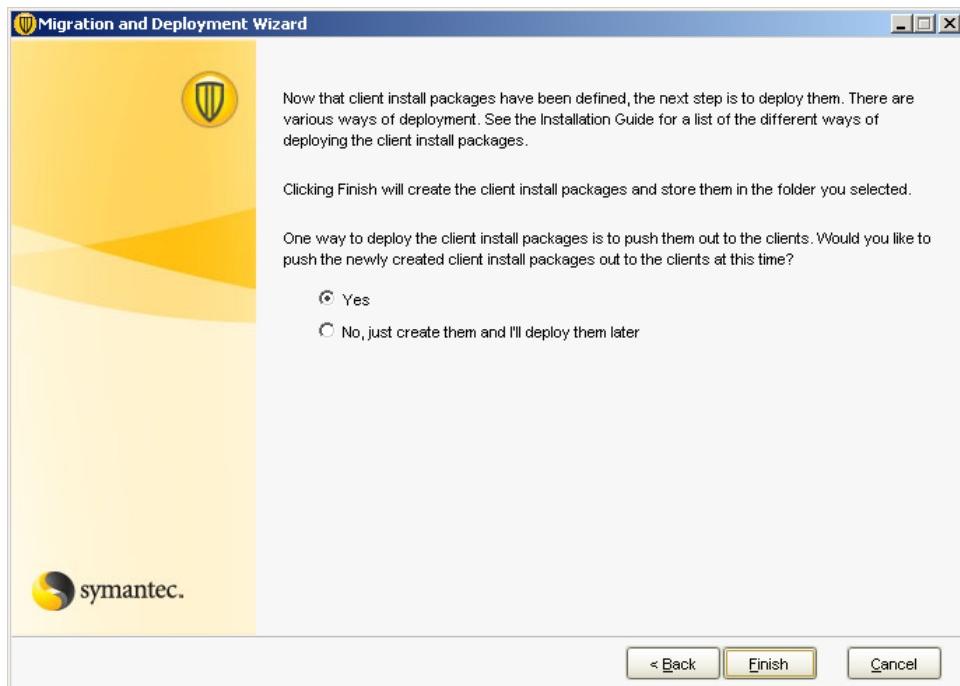


5. In the next panel, check the options that you want for packages, files, and user interaction.
  - Click **Browse**, locate and select a directory in which to place the installation files, and then click **OK**.

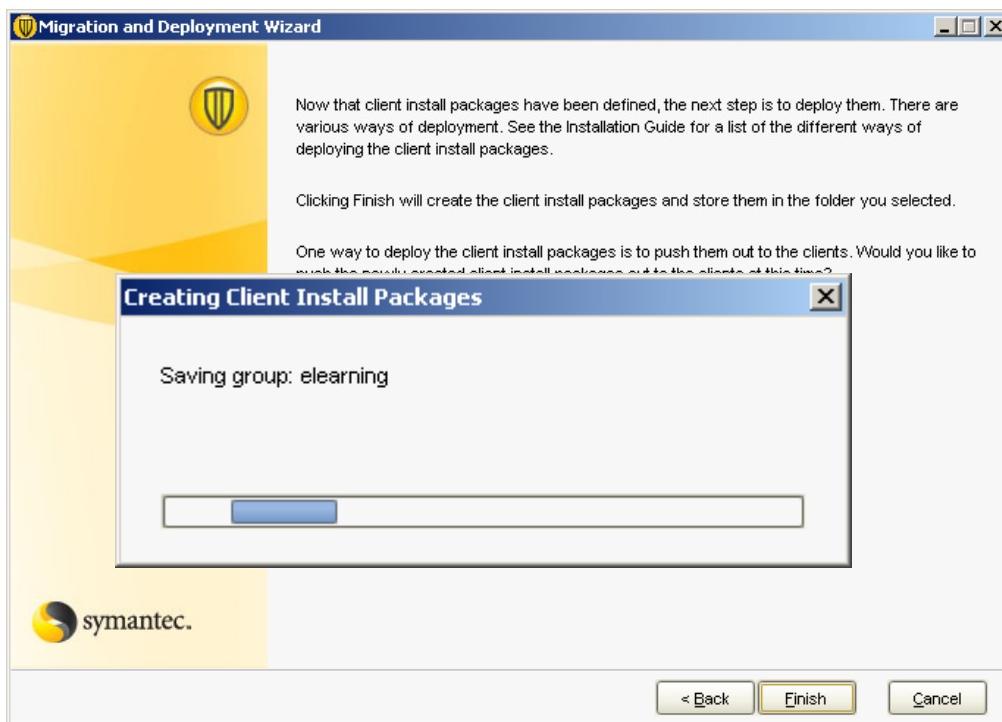


6. Click **Next**.

7. In the next unnamed panel, check **Yes**, and then click **Finish**.

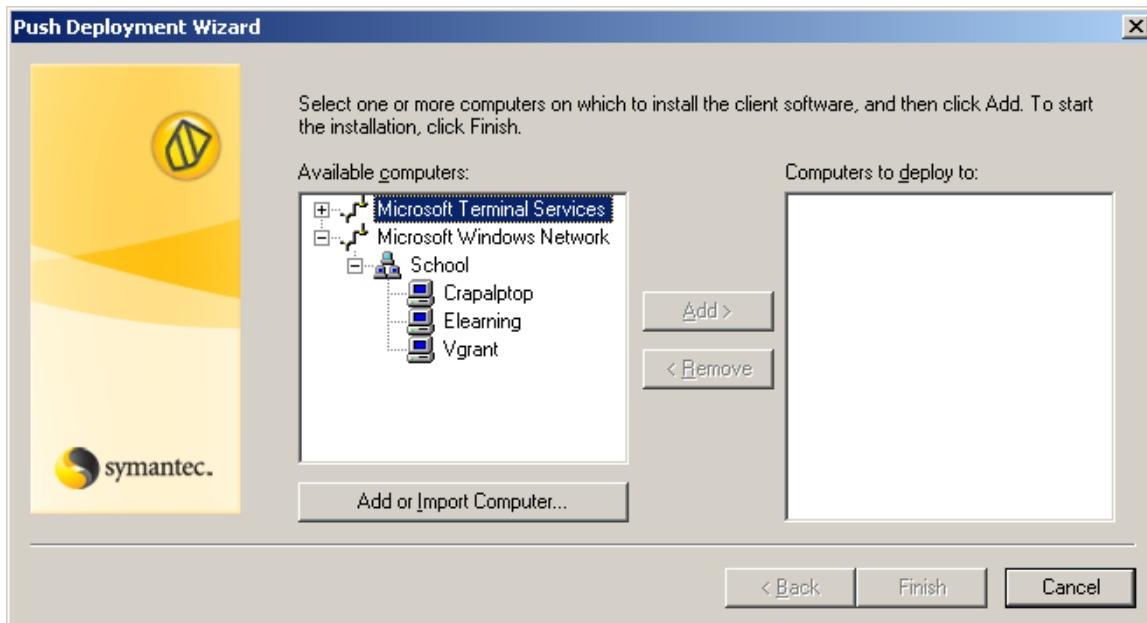


Do not check Launch Administrator Console. It can take up to 5 minutes to create and export the installation package for your group before the Push Deployment Wizard appears.



**To deploy the client software with the Push Deployment Wizard**

1. In the Push Deployment Wizard panel, under Available Computers, expand the trees and select the computers or Domain you which to install the client software, and then click **Add**.



2. In the Remote Client Authentication dialog box, type a user name and password that can authenticate to the Windows Domain or Workgroup that contains the computers, and then click **OK**.



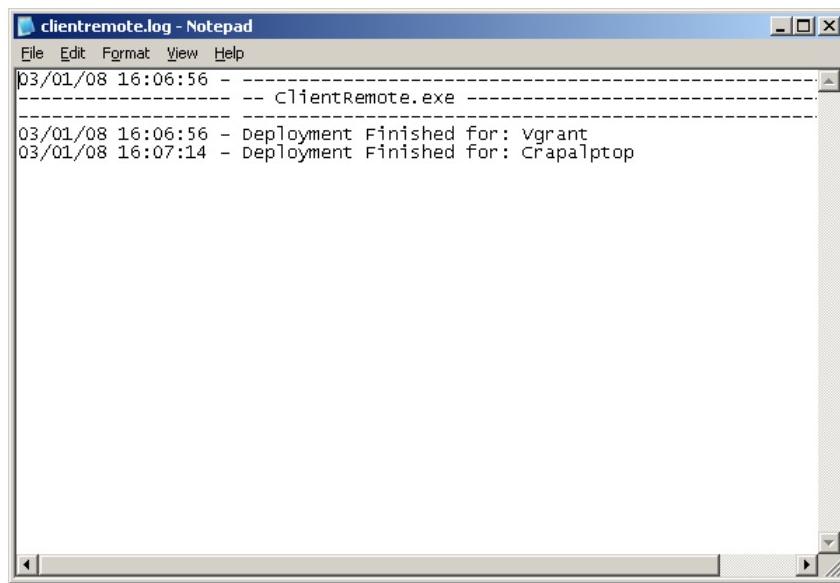
3. When you have selected all of the computers and they appear in the right pane, click **Finish**.
4. When installation completes, click **Done**.

Remote Client Progress is then illustrated. On completion of the installation a dialogue box appears illustrating **Would you like to view the deployment log?**



If **Yes**, is selected a text file is automatically generated to illustrate the remote client installation log details.

Deployment log illustration



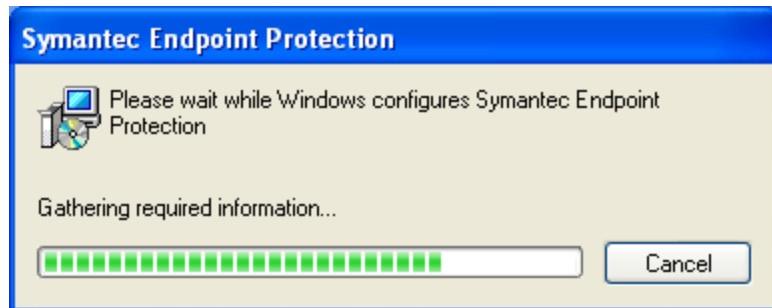
5. When installation completes, click **Done**.

Note: During the remote client deployment process, unattended or silent installation will be presented as the type of installation options.

**Unattended:** Installation is visible and users may be prompted to restart their computer.

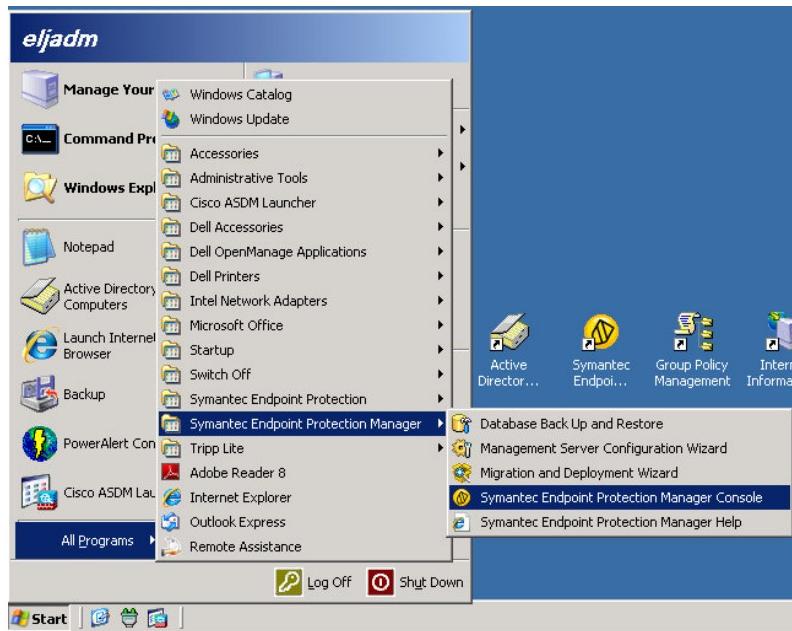
**Silent:** Installation occurs silently in the background with no restart prompt.

In the event that the unattended type of installation is selected the following illustration will appear on the designated remote client (user) screen.

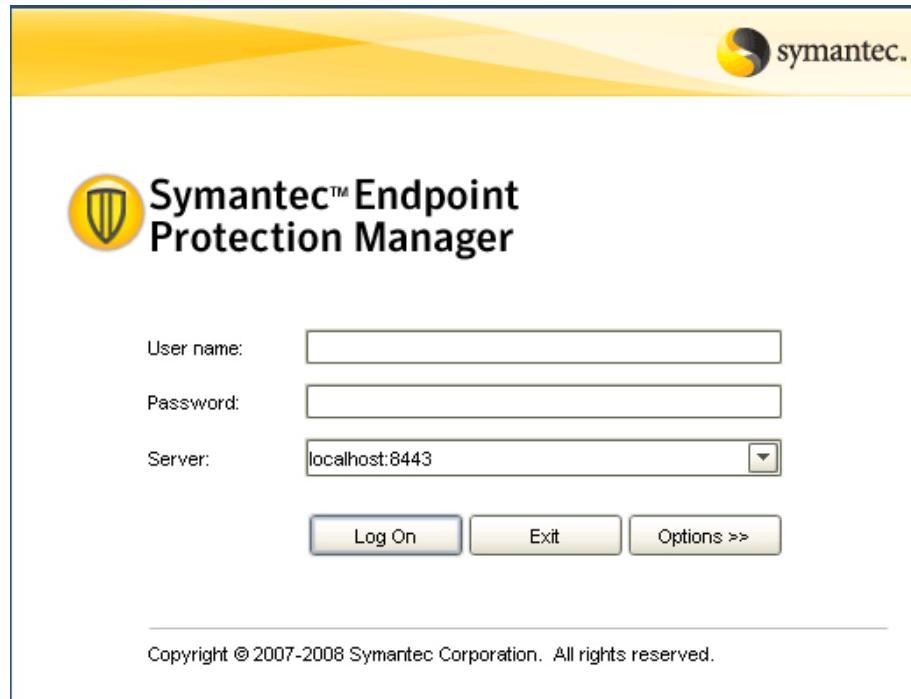


## How To Deploy Client Remotely After You Have Completed Initial Installation

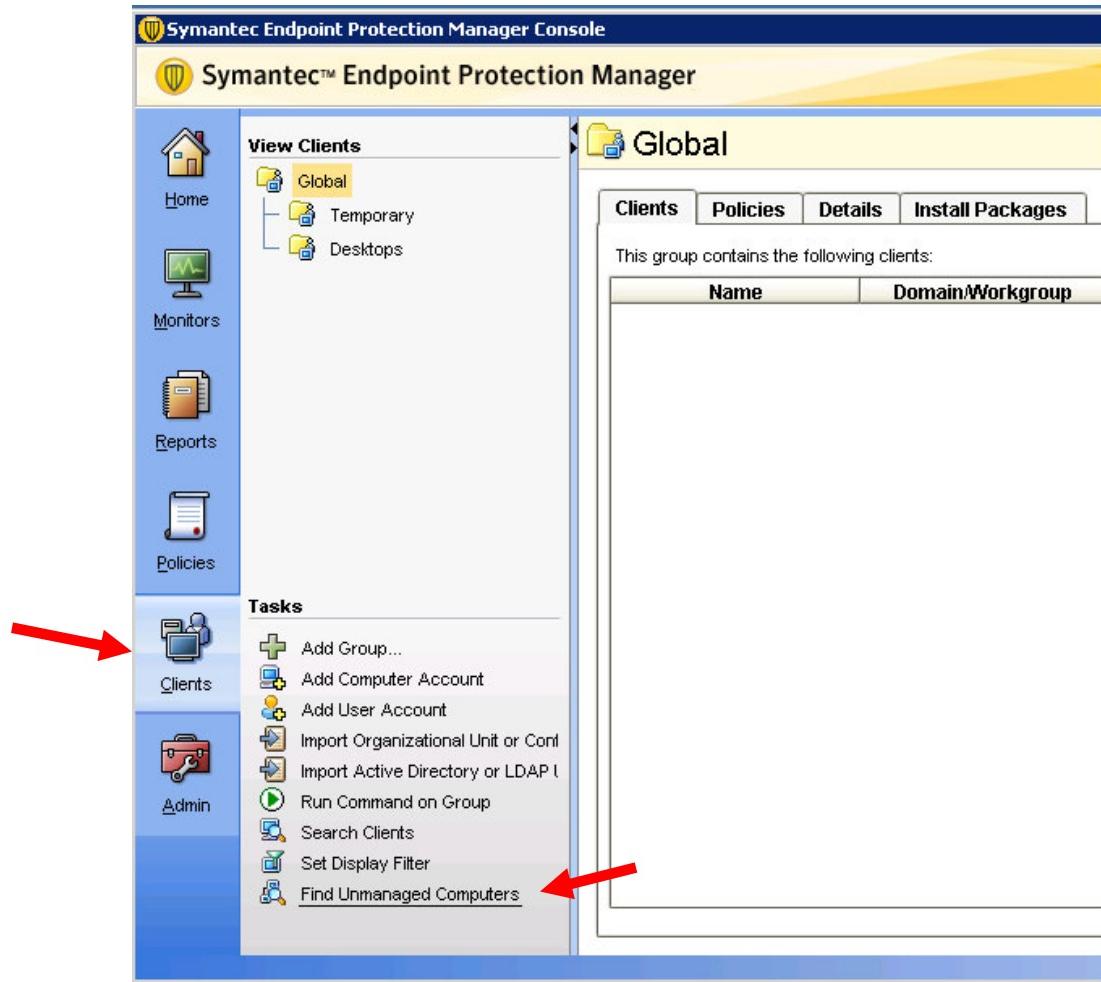
### 1. Open the Symantec Endpoint Protection Manager Console



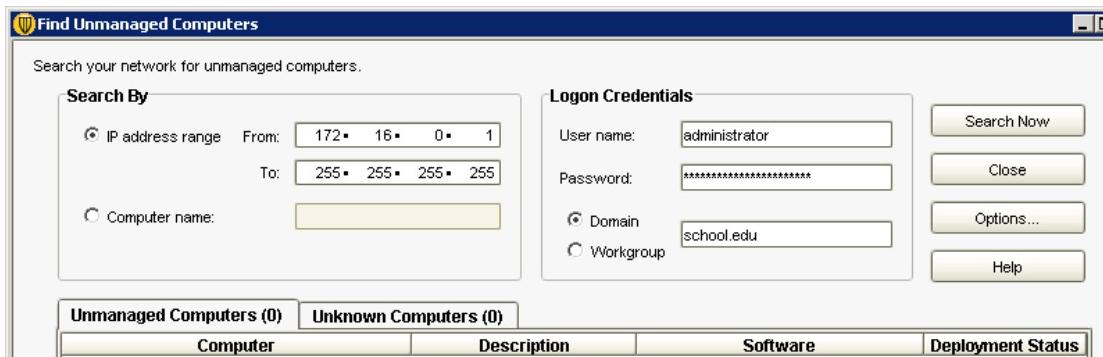
### 2. Login to the System



3. In the Symantec Endpoint Protection Manager Console choose Clients
4. Select “Find Unmanaged Computers”



5. Enter all the relevant information in the Dialogue box



6. Click on “Search Now”

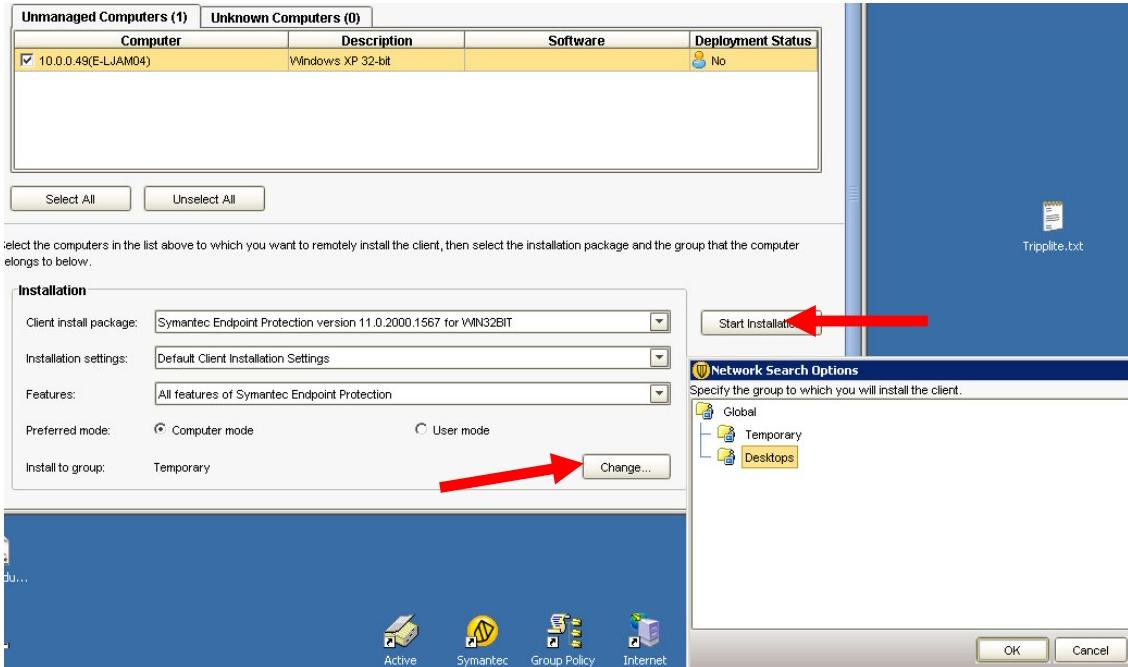
**N.B.** Any unmanaged client will be displayed at this point



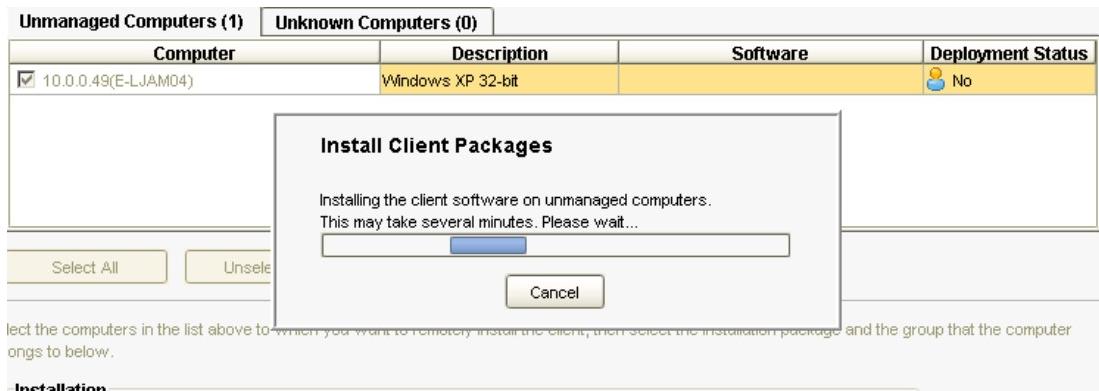
7. Select the machine which have **Deployment Status** set to **No** or press **Select All** if there are many clients to roll out.

**N.B.** If you are doing this it means that you already have a client group setup. You can move the clients into that group during this process instead of having to move it after it has been installed.

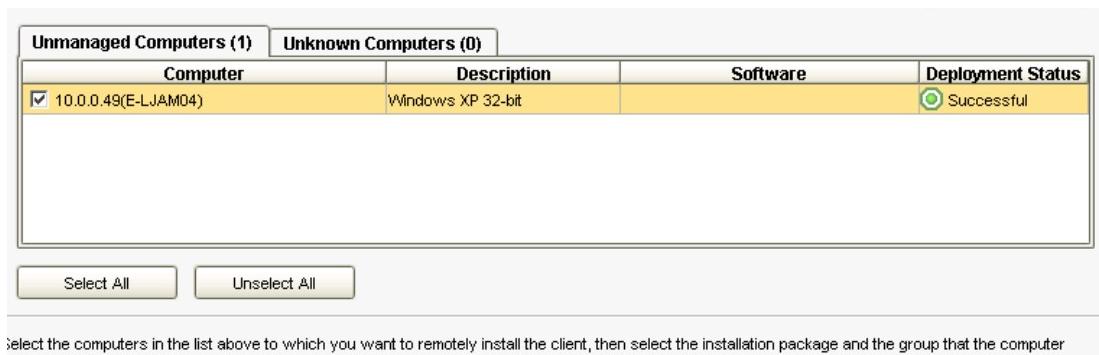
8. Select “**Change**” to select client group



9. Click “**Start Installation**” to rollout the application.  
 You will see the following screen during the installation process



You will see the following screen after successful installation of the client.



### Logging on to and locating your group in the console

Your first activity is to log on to the console and locate your group.

#### Logging on to the management console

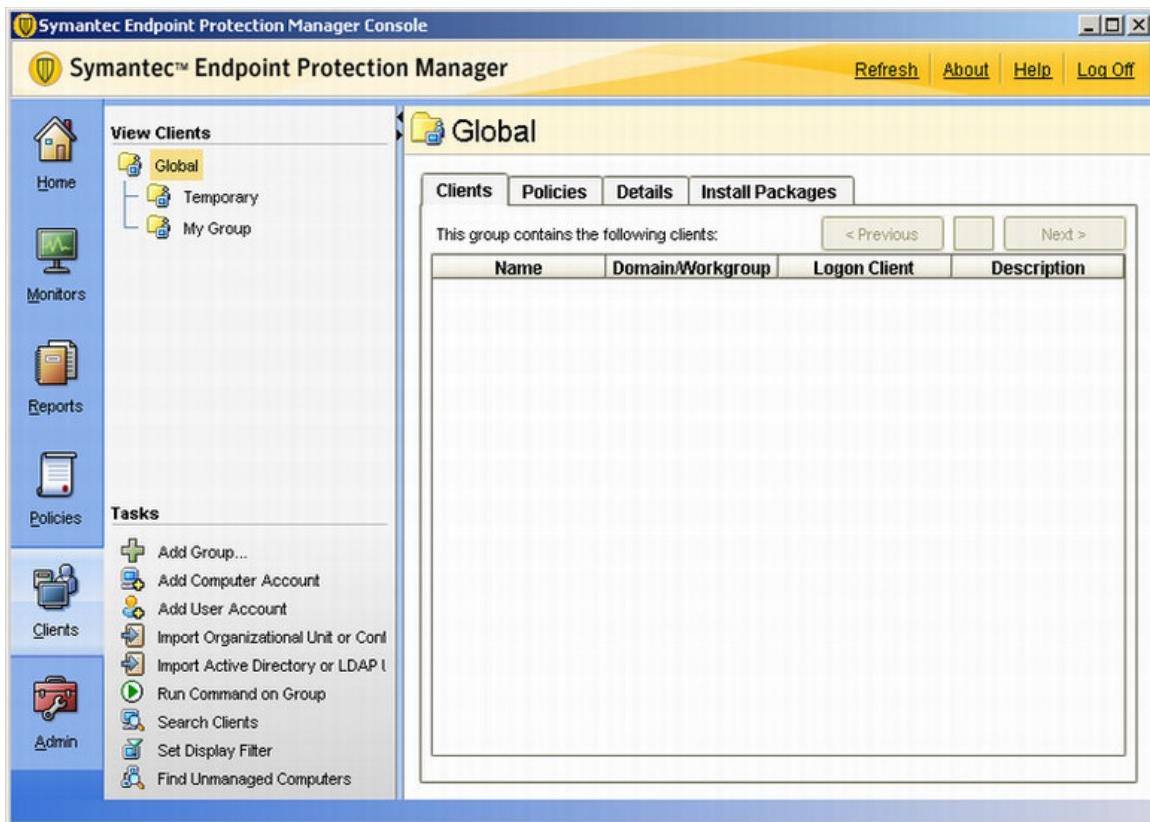
The management console lets you manage clients.

#### To log on to the management console

1. Click Start > Programs > Symantec Endpoint Protection Manager > Symantec Endpoint Protection Manager Console.
2. In the Symantec Endpoint Protection Manager logon prompt, in the User Name box, type **admin**.
3. In the Password box, type the admin password that you created during installation, and then click **Log on**.

#### About locating your group in the console

After you log on, you should locate the group that you created during installation. Then verify that the client computers to which you deployed software appear in that group.



## About policies

Symantec Endpoint Protection Manager lets you configure and apply policies to groups or locations in groups. All client computers that are in the groups and locations receive the permissions and features that are specified in the policies.

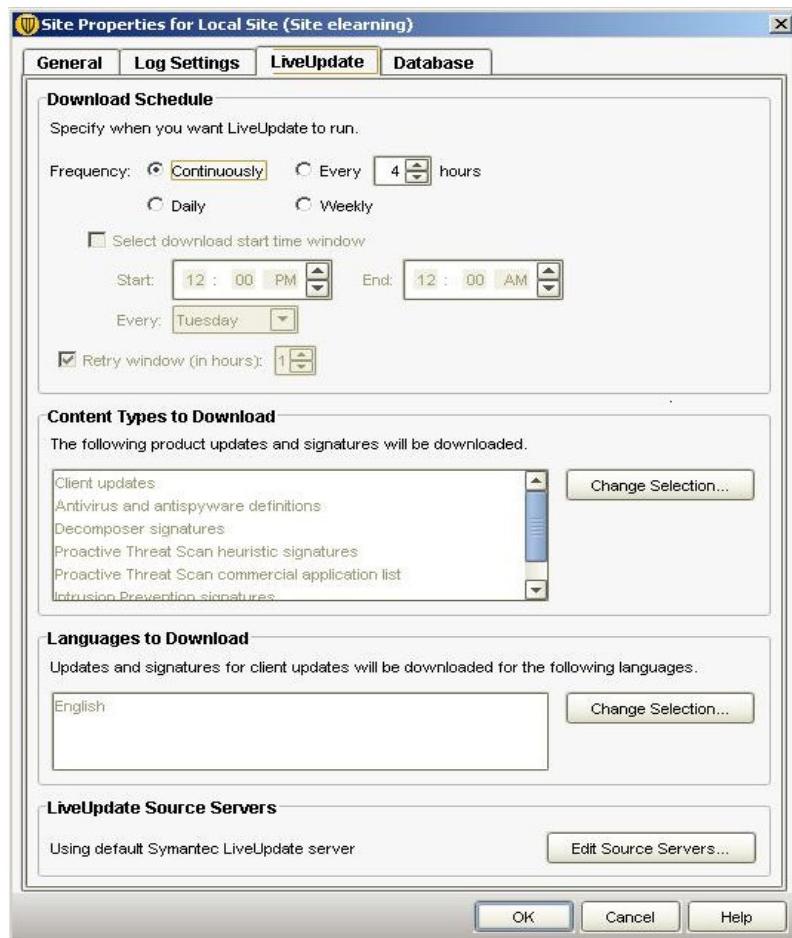
### Configuring LiveUpdate for site updates

You should configure the frequency that the Symantec Endpoint Protection Manager checks for and downloads new updates to the site. You also configure client updates with LiveUpdate Content policies, so be sure to download all types that you want clients to receive.

**Note:** Symantec Endpoint Protection Manager for Symantec Network Access Control only supports product updates.

#### To configure LiveUpdate for the site

1. In the console left pane, click **Admin**.
2. In the lower-left pane, click **Servers**.
3. In the upper-left pane, right-click **Local Site**, and then click **Properties**.



4. On the LiveUpdate tab, under Download Schedule, check the Frequency options with which to download the latest definitions.
5. For details about setting other options in this dialog box, click **Help**.
6. When you finish setting the site's LiveUpdate properties, click **OK**.

#### Configuring LiveUpdate for client updates

When you create a group with the Installation and Migration Wizard, your group receives default policies. If you create a new policy of the same type as a default policy and apply it to the group, the default policy disappears.

Two types of LiveUpdate policies exist. A LiveUpdate Settings policy specifies the frequency that clients run LiveUpdate to check for content updates. A LiveUpdate Content policy specifies the content that clients can receive when they run LiveUpdate.

#### Configuring a LiveUpdate Settings policy

When you create a group with the Installation and Migration Wizard, your group receives default policies. You can either create a new policy and replace the default policy, or edit the default policy. A best practice is to create a new policy and modify the default policy.

##### To configure a LiveUpdate settings policy

1. On the console, click **Policies**.
2. In the View Policies pane, click **LiveUpdate**.
3. In the lower-left Tasks pane, click **Add a LiveUpdate Setting Policy**.

4. In the Overview pane, in the Policy name box, type a name for the policy.
5. Under LiveUpdate policy, click **Schedule**.
6. In the Schedule pane, accept or change the scheduling options.
7. Under LiveUpdate policy, click **Advanced Settings**.
8. Decide whether to keep or change the default settings.
9. For details about the settings, click **Help**.

Generally, you do not want users to modify update settings. However, you may want to let them manually launch a LiveUpdate session if you do not support hundreds or thousands of clients.

10. When you have configured your policy, click **OK**.
11. In the Assign Policy dialog box, Click **Yes**.
12. In the Assign LiveUpdate Policy dialog box, check the groups and locations to which to apply the policy, and then click **Assign**.

If you cannot select a nested group, that group inherits policies from its parent group, as set on the Clients Policies tab.

13. In the Apply LiveUpdate Policy dialog box, click **OK**, and complete the application.

#### Configuring a LiveUpdate Content policy

By default, all clients in a group receive the latest versions of all content updates. If a group is configured to get updates from a management Server, the clients receive only the updates that the Server downloads. If the LiveUpdate content policy is configured to allow all updates, but the management Server is not configured to download all updates, the clients receive only what the Server downloads.

What the Server downloads is configurable from the Admin pane.

**Note:** *LiveUpdate Content policies are not available for Symantec Network AccessControl clients.*

#### To configure a LiveUpdate Content policy

1. On the console, click **Policies**.
2. In the View Policies pane, click **LiveUpdate**.
3. In the LiveUpdate Policies pane, click the **LiveUpdate Content** tab.
4. In the lower-left Tasks pane, click **Add a LiveUpdate Content Policy**.
5. In the Overview pane, in the Policy name box, type a name for the policy.
6. If you configure Symantec Endpoint Protection, in the LiveUpdate Content pane, click **Security Definitions**.
7. In the Security Definitions pane, check the updates to download and install, and uncheck the updates to disallow.
8. In the LiveUpdate Content Policy window, click **OK**.
9. In the Assign Policy dialog box, click **Yes**.
10. In the Assign LiveUpdate Content Policy dialog box, check one or more groups to which to apply this policy, and then click **Assign**.

If you cannot select a nested group, that group inherits policies from its parent group, as set on the Clients Policies tab.

11. In the Apply LiveUpdate Policy dialog box, click **OK**, and complete the application.

#### Configuring and testing Symantec Endpoint Protection

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After you configure and install a LiveUpdate policy, you should create and apply an Antivirus and Antispyware protection policy.

Note: This section assumes that you purchased Symantec Network Access Control and installed it.

### Configuring a default Antivirus and Antispyware policy

Next, you should configure an Antivirus and Antispyware policy for your group. This procedure has you edit the default policy that is currently only applied to the group. You can, however, create a new policy and apply it to your group.

#### To configure a default Antivirus and Antispyware policy

1. On the console, in the left pane, click **Clients**.
2. Under **My\_Group**, on the Policies tab, under Policies, across from Antivirus and antispyware policy [shared], click **Tasks > Edit Policy**.
3. In the Edit Policy dialog box, click **Convert Non-Shared**.
4. In the AntiVirus and Antispyware panel, click **File System Auto-Protect**.
5. On the Scan Details tab, verify that **Enable File System Auto-Protect** is checked, and that the lock icon is in the unlocked mode (for testing).

Generally, you want this setting locked, but for initial testing purposes, leave it unlocked. Locking a setting prevents users from changing a setting.

6. On the Actions tab, under Detection, click **Non-macro virus**.
7. Under Actions for: Non-macro virus, inspect the default sequence of actions that occur when a non-macro virus is detected.

The first action is to try to clean the virus. If it is not possible to clean, the virus is quarantined.

8. On the Notifications tab, inspect the message that appears on client computers when a virus or security risk is detected.

You can change this message later if necessary.

9. In the left pane, click **Administrator-defined scans**.
10. On the Scans tab, under Name, click **Full Scan every Friday at 8 PM**, and then click **Edit**.
11. Become familiar with the options on the different tabs and change them if necessary.

Full scans are always recommended initially. After full scans are run, Quick scans and Auto-Protect are effective to secure client computers.

12. When you understand the scan options, click **OK**.
13. In the left pane, click **Quarantine**.
14. In the Quarantine pane, under Additional Options, click **Clean-up options**.
15. In the Clean-up options dialog box, review the settings for purging repaired and quarantined files.

Become familiar with these settings if you want to change them in the future.

16. Click **OK**.

### Testing antivirus capabilities

You should experiment with antivirus detection in a controlled test environment to become familiar with alerts and log entries. Before you test antivirus detection, download the latest antivirus test file Eicar.com onto transportable media such as a memory stick. You can download Eicar.com at the following URL:

<http://www.eicar.org>

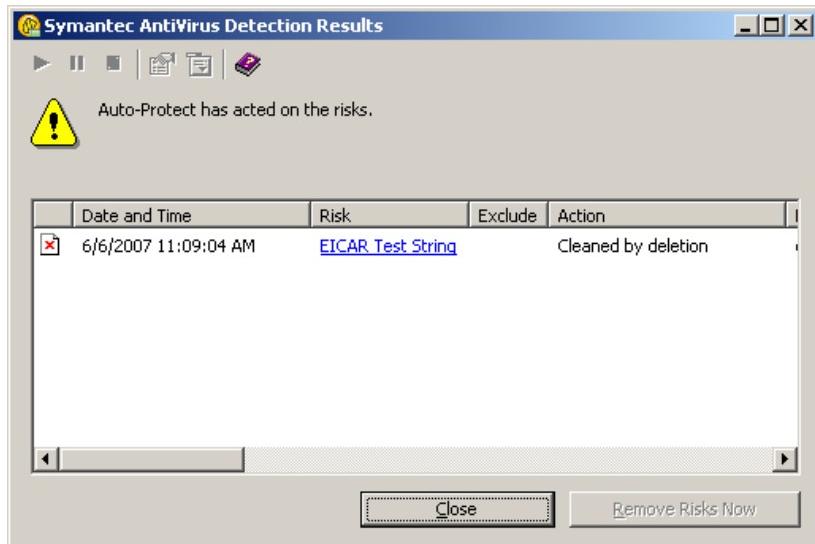
#### Testing Auto-Protect

Auto-Protect is the Symantec real-time process that inspects every file that executes or is user-accessed to see if it is a virus or security risk. Auto-Protect determine whether files are viruses or security risks by using the definitions that you download from Symantec. You can see how Auto-Protect works by using a benign virus called Eicar. Several versions are available from at the following URL:

[http://www.eicar.org.](http://www.eicar.org)

#### To test Auto-Protect

1. On a client computer, in the lower-right corner of the Taskbar, right-click the Symantec Endpoint Protection shield  9:43 AM, and click **Disable Auto-Protect**.
2. If you have not downloaded eicar.com, go to <http://www.eicar.org>, and then locate and download eicar.com to the client computer.
3. In the lower-right corner, right-click the Symantec Endpoint Protection shield, and click **Enable Auto-Protect**.



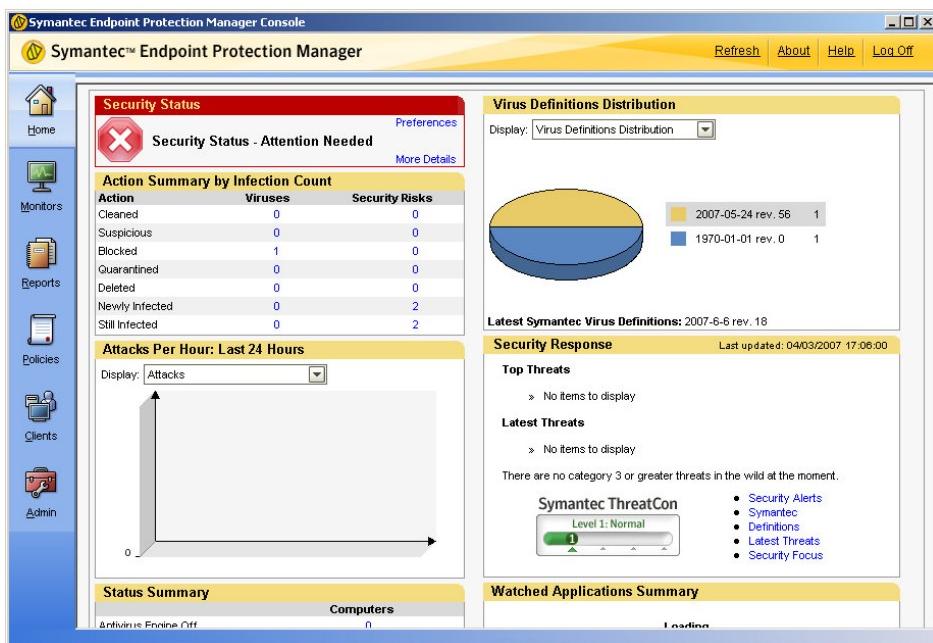
4. Double-click **eicar.com**.
5. Read and become familiar with the details in the message prompt(s).

### Managing the detected threat

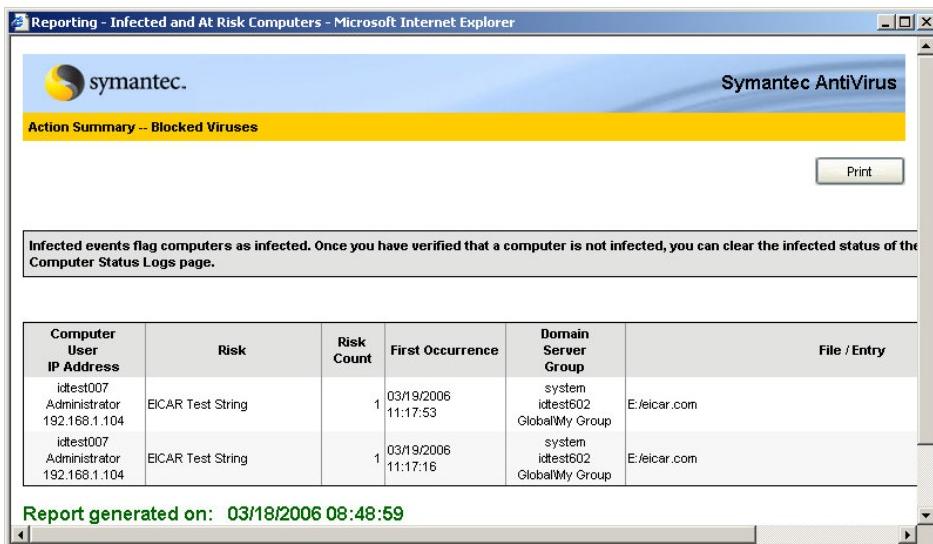
After Symantec Endpoint Protection detects and isolates eicar.com, it sends the information to Symantec Endpoint Protection Manager. You can then see that the activity that occurred from the Home page in Symantec Endpoint Protection Manager Console. This task is a primary task that you perform in a production environment. When clients detect real threats, you first display details about the threat. You then decide if Auto-Protect mitigated the threat and then clear the status.

### To manage the detected threat

1. In the console, click **Home**.

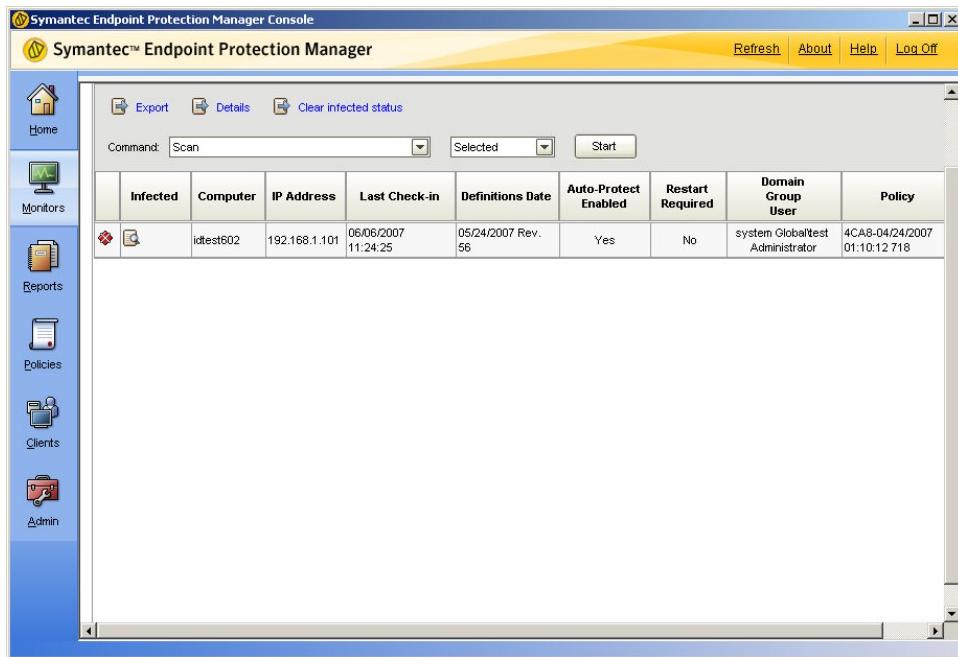


2. In the Viruses column for the Blocked row, click the number.



3. In the Reporting - Infected and AT Risk Computers window, become familiar with the reported information, and then close the window.

4. Click **Monitors**.
5. On the Logs tab, in the Log Type drop-down, click **Computer Status**, and then click **View Log**.



6. To display information about the infection, click **Details**.
7. To clear the Infected Status, click **Clear infected status**.

#### Configuring the security status icon

The Home page displays the security status of your client computers. The two possible statuses are Good and Poor. You can control when the status is Good and Poor by setting security status threshold preferences.

#### To configure the security status icon

1. In the console, click **Home**.
2. Under Security Status, click **More Details**.
3. In the Security Status dialog box, review the features that trigger the Good and Poor status.
4. In the upper-right corner, click **X**.
5. Under Security Status, click **Preferences**.
6. In the Preferences dialog box, on the Security Status tab, review the security status triggers and thresholds that you can set.

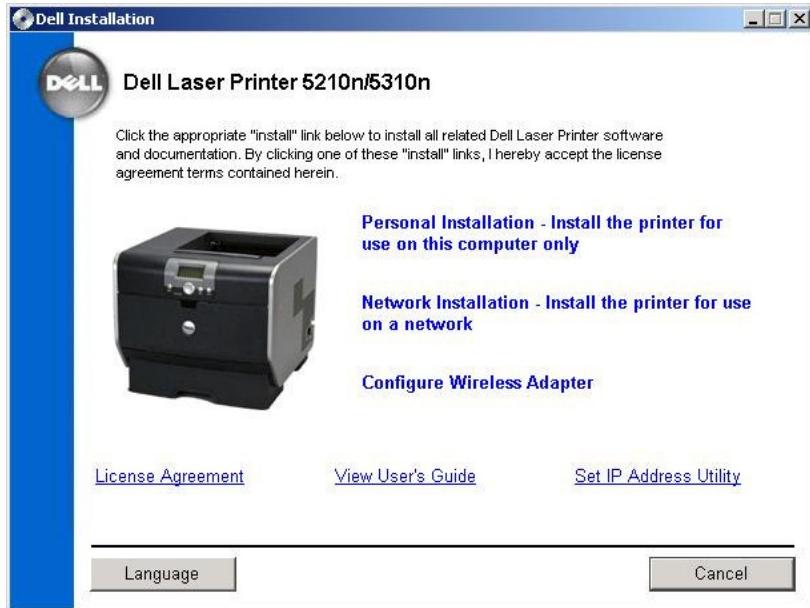
All thresholds default to 10 percent.

Step	Action	Description
1.	Install Symantec Endpoint Protection Manager	Decide on the computer to which you want to install the software and the type of database that you want to use. Then, run the installation program from the CD. The program first installs the manager software. It then installs and configures the database.
2.	Create a client install package	<p>For your test environment you can create and install default client software packages. Those clients are assigned to the Temporary group and use the default policies.</p> <p>If there are a large number of computers in your production environment, you may want to create custom security policies first. You can then create custom client installation packages before deploying to the clients.</p> <p>At the end of the database configuration, you are asked if you want to run the Migration and Deployment Wizard. This wizard creates and then pushes out a default client software installation package.</p>
3.	Deploy the client software	Decide how you want to deploy the client software. You can deploy the client software in several different ways. For ease of use, you can use the Migration and Deployment Wizard after you install the manager to deploy the default protection. Alternately, you can use the Migration and Deployment Wizard from the Start menu at any time.

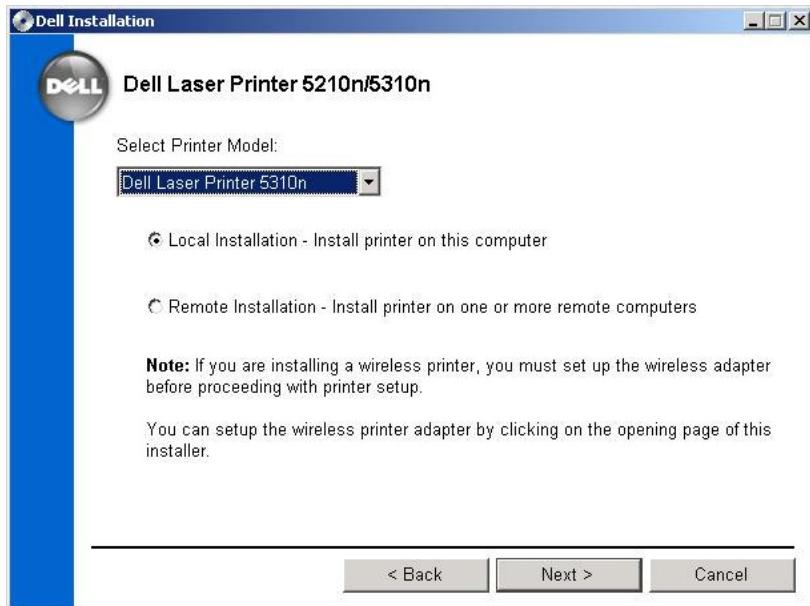
## HOW TO INSTALL DELL LASER PRINTER 5310n

### Using the Dell CD

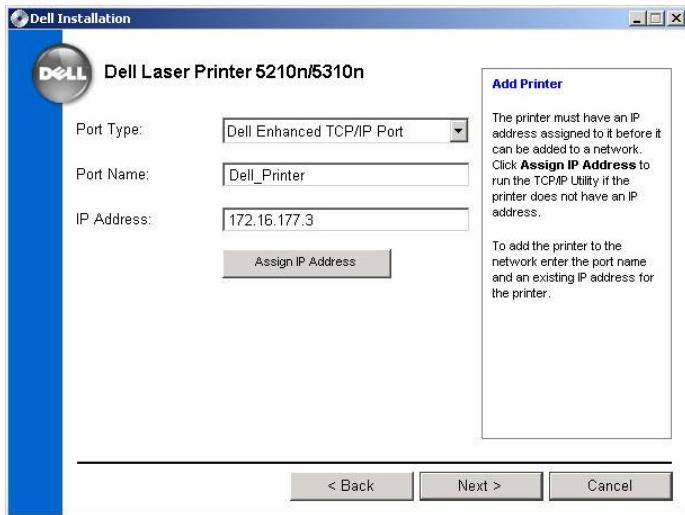
1. Select Network Installation



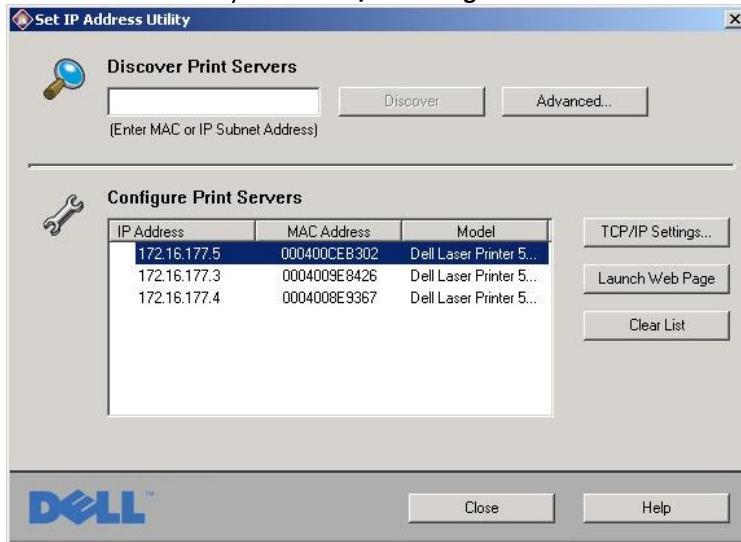
2. Select Printer Model “Dell Laser Printer 5310n” ensure the local installation radio button is selected. Then click next



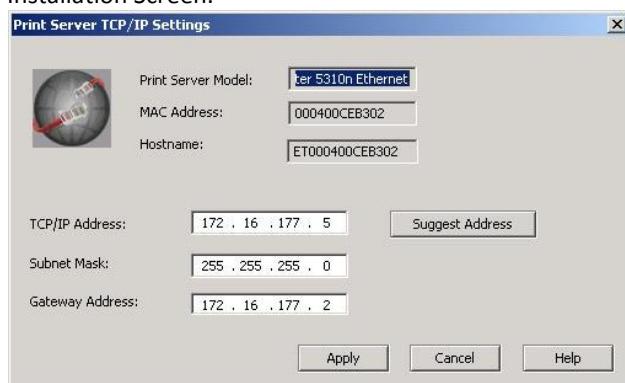
3. Select the Port Type “Dell Enhanced TCP/IP Port” and enter a Port Name for the printer and click Assign IP address



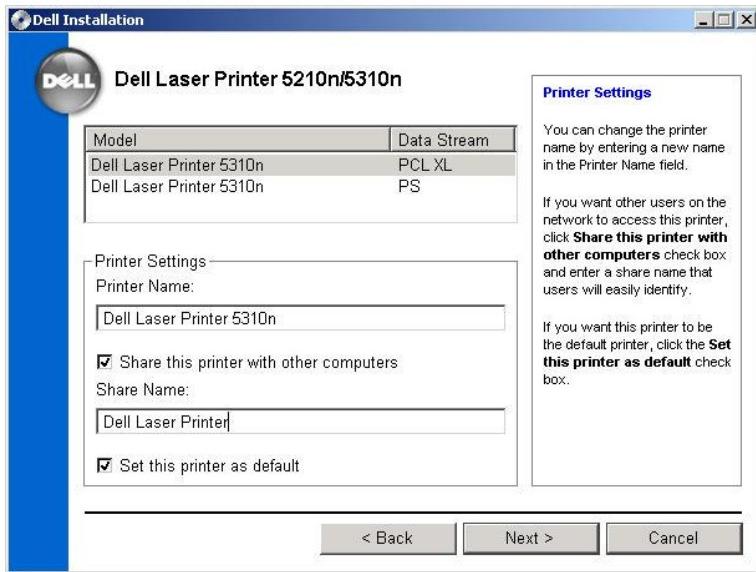
4. In the Set IP Address Utility Select **TCP/IP Settings** to set the IP address for the printer



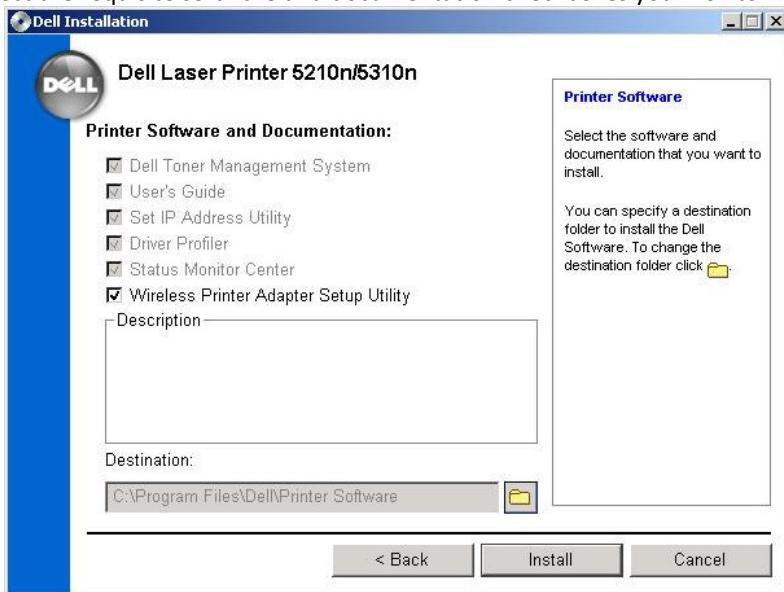
5. Set the IP address, Subnet Mask and If necessary the Default Gateway. Then click Apply to return to the Dell Installation Screen.



6. Select the Printer Model, specify the Printer Name and Share Name, and ensure the “Share this printer checkbox is selected”. Then click Next



7. Select the requisite software and documentation checkboxes you wish to install then click **Install**

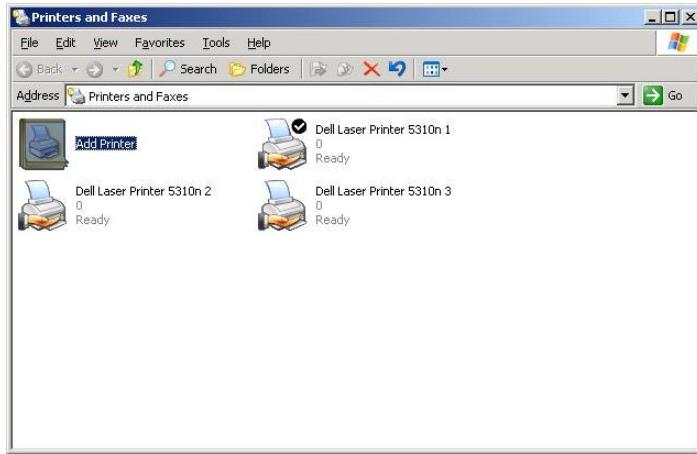


8. Then click **Finish**

After this you have successfully installed the printer using the Printer CD

## Manually Installing the Dell Laser Printer 5310n

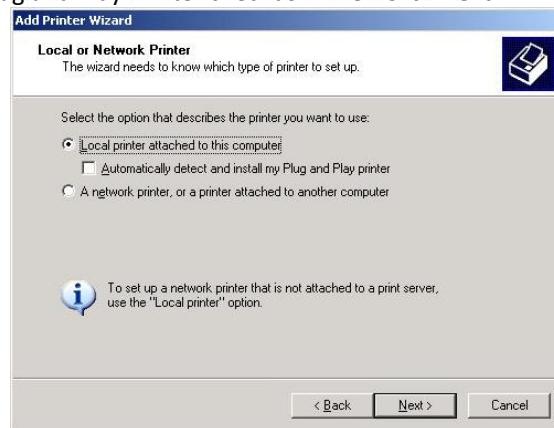
1. Browse to the Printers and Faxes icon and select Add Printer



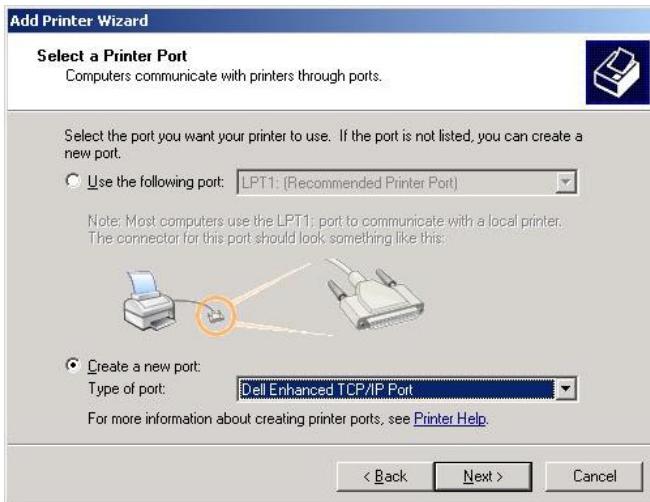
2. Click Next at the add printer Wizard



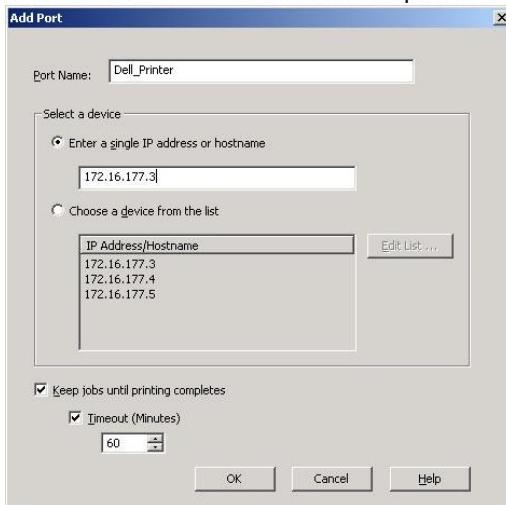
3. Select "Locally Attached Printer" radio button and unselect checkbox to automatically detect and install Plug and Play Printer checkbox. Then Click Next



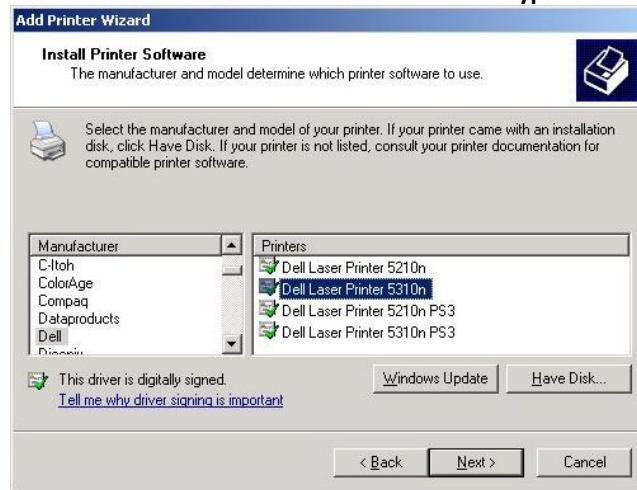
4. Select the printer Port Type associated with the Printer. Preferably “Dell Enhanced TCP/IP port”. Then click **Next**



5. Label the Port Name and the IP address associated with the printer. Then Click **OK**



6. On the Add Printer Wizard select The **Manufacturer** and **Printer Type**



7. At this point the driver is already installed on the machine. Select “**Keep existing driver**” and click **Next**



8. Select Share Name and enter a share name for the printer. Then click **Next**.



9. The next screen you have the option of specifying a Location and Description for the printer. Then click **Next**

10. Specify if you wish to print a test page then click **Next**.

11. At this point on clicking **Finish**, you have just successfully installed the printer manually.



## **Enabling the Duplex Option**

### **Step 1**

- a) Navigate to the **Printers and Faxes** page and right click on the installed printer then click properties.
- b) Select **Install Options** tab and below you will see the Duplex option.
- c) Select the **Duplex Option** then click **Add** then Apply and Ok.

### **Step 2**

- a) On the print device press the **Menu** button
- b) Select **Settings**
- c) Select **Finishing Menu**.
- d) Select **Duplex**
- e) Then select **On** to turn on the duplexer

## HOW TO CLEAR PAPER JAMS FOR DELL LASER PRINTER 5310n

1. Pull open front lever of printer



2. Push the release latch to the right to open the top front cover

**CAUTION:** The inside of the printer may be hot. Allow the printer to cool before touching any internal components.



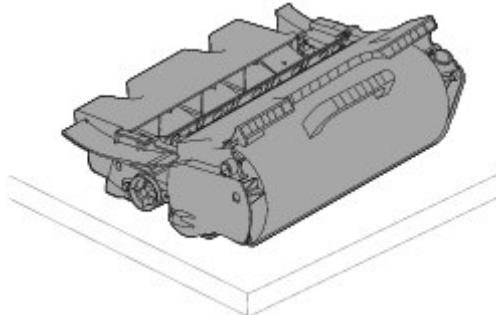
3. Lift and pull print cartridge out of the printer

**NOTICE:** Do not touch the photoconductor drum on the underside of the cartridge. Use the cartridge handle whenever you are holding the cartridge.



4. Place the print cartridge aside

**NOTE:** Do not leave the cartridge exposed to light for extended periods.



5. Pull the print media up and toward you

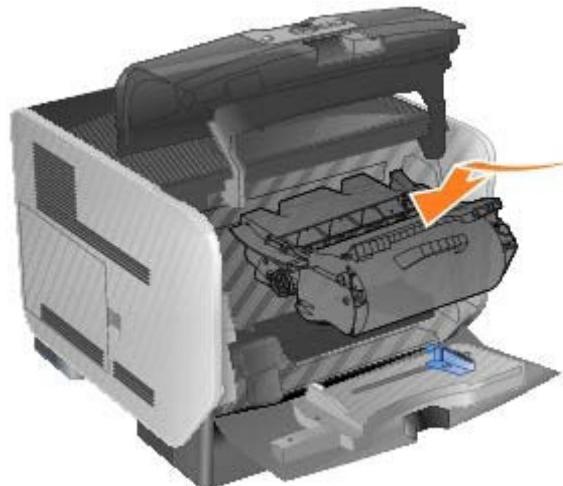
**NOTE:** The print media may be covered with unfused toner, which can stain garments and skin.

**NOTICE:** If the print media does not move immediately when you pull, stop pulling. You need to access the print media from the printer rear door.

**CAUTION:** Do not use any pointed objects to remove the paper. This could cause personal injury or damage to the printer.



6. Align and reinstall the toner cartridge



7. Close the top front cover



8. Close the multipurpose feeder



9. Press the Select button 

**Note:**

*Paper jams may be caused by paper that has not been properly stored. Store paper flat, in a clean and low humidity environment.*

## HOW TO REPLACE THE TONER CARTRIDGE FOR Dell LASER PRINTER 5310n

1. Pull on the notch on the front of the printer to lower the multipurpose feeder



2. Push the release latch to the right to open the top front cover

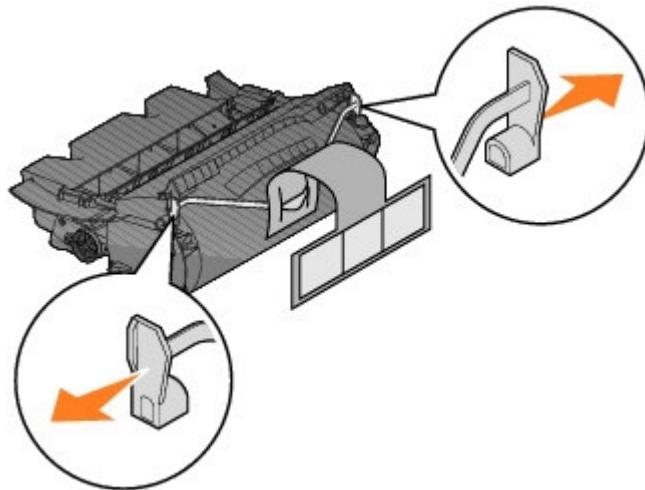


3. Pull the print cartridge up and out of the printer

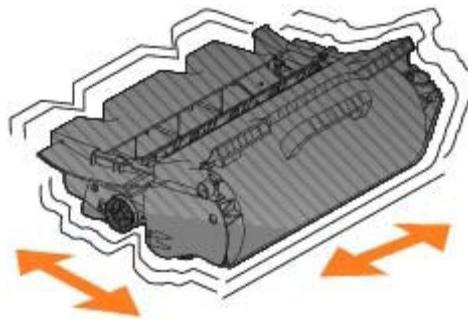
**NOTICE:** Do not touch the photoconductor drum on the underside of the cartridge. Use the cartridge handle whenever you are holding the cartridge.



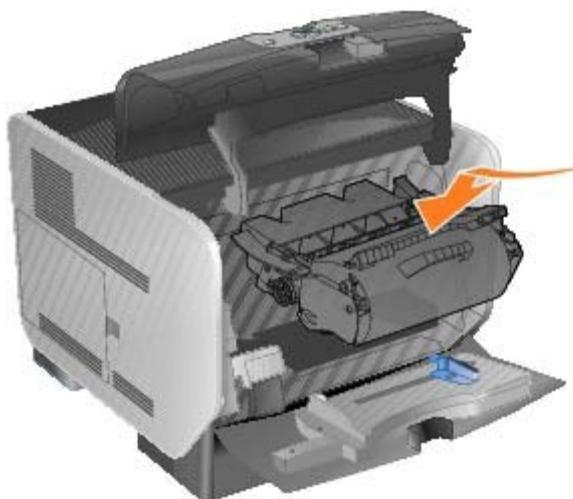
4. Unpack the new toner cartridge. Remove and discard the print cartridge's protective foam, red plastic strap, and tape



5. Thoroughly shake the cartridge side-to-side and front-to-back several times to distribute toner evenly



6. Insert the print cartridge into the printer



7. Close the top front cover



8. Close the multipurpose feeder



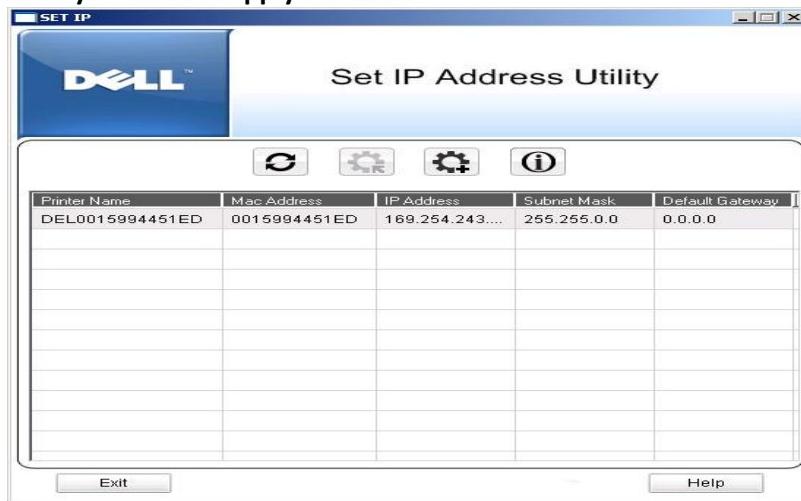
## INSTALATOIN OF DELL 5330dn MONO LASER PRINTER

## Using the Dell CD

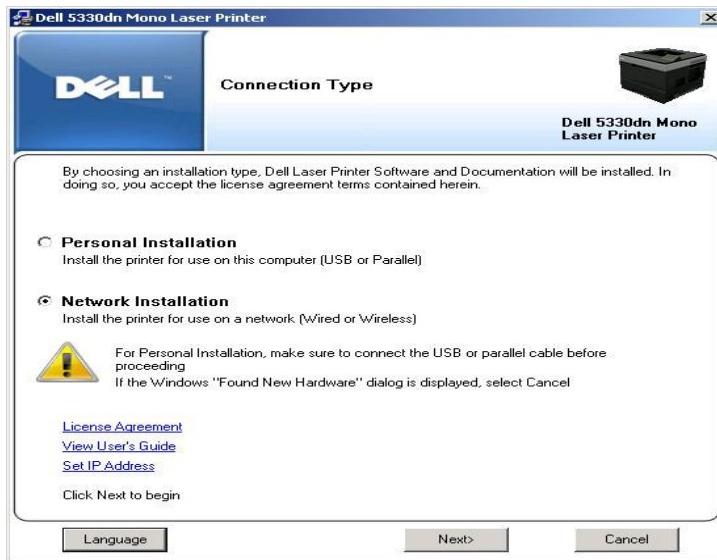
1. In order to establish communication with the server & printer it is appropriate to configure a static (manual) IP Address to the printer. Click on the hyperlink [Set IP Address](#)



- Double click on the discovered Printer and enter the appropriate **IP Address**, **Subnet Mask** and **Default Gateway**. Then click **Apply** then **OK**.



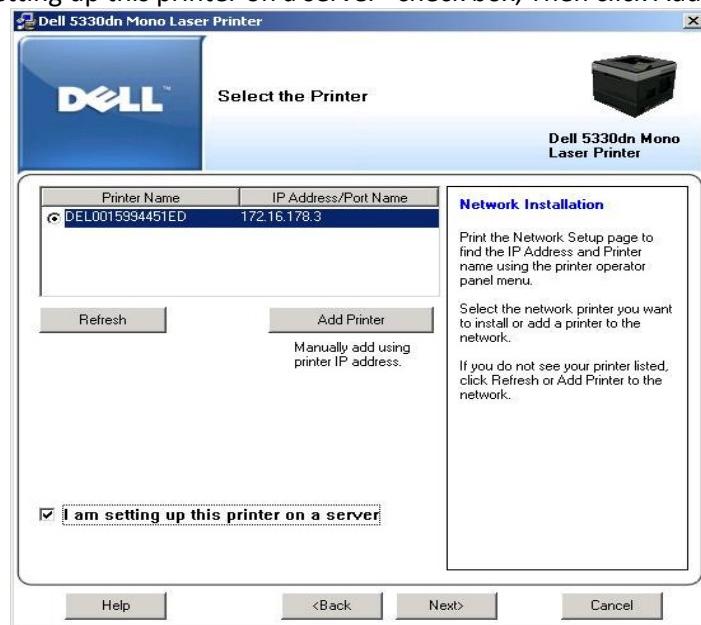
2. Upon exiting the Set IP Address Utility screen we are back on the Connection Type screen. Ensure the **Network Installation** radio button is selected then click **Next**



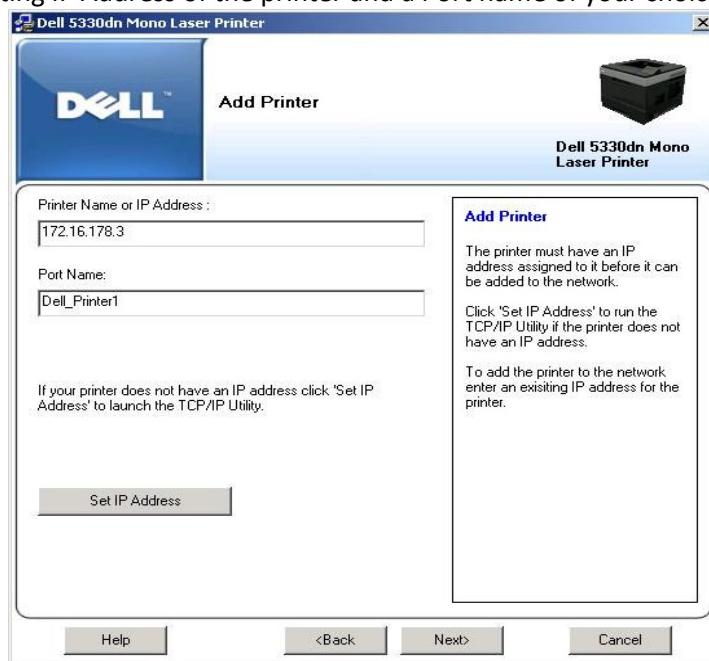
3. Select Local Installation radio button and click **Next**



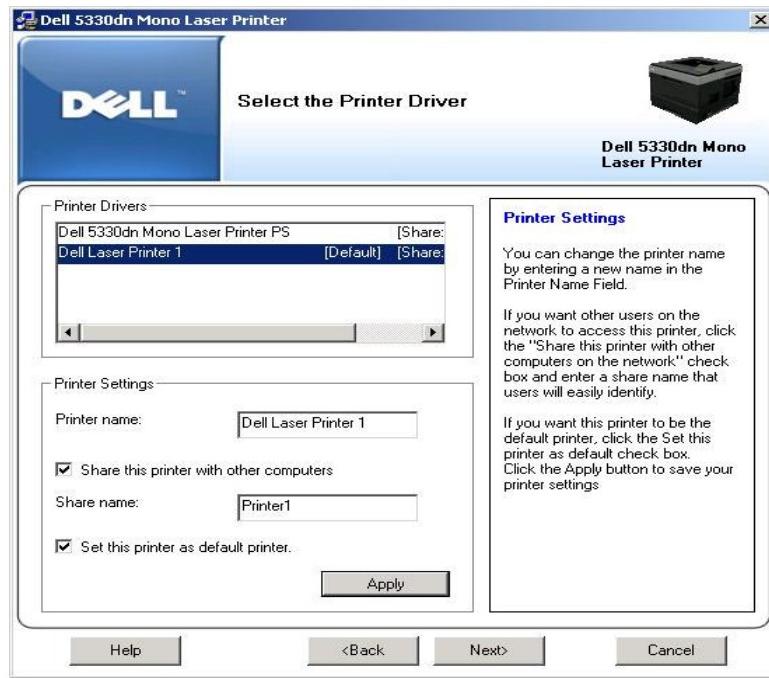
4. Check "I am setting up this printer on a server" check box, Then click Add Printer



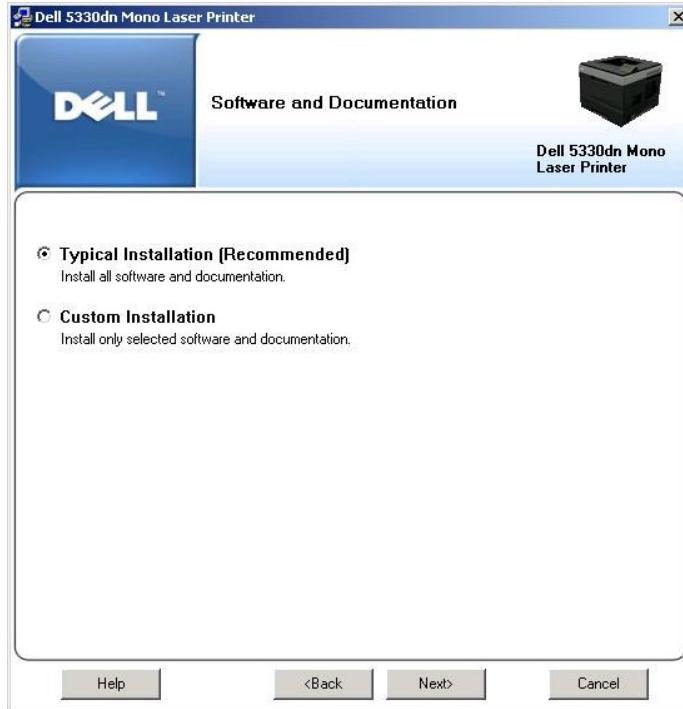
5. Enter the existing IP Address of the printer and a Port name of your choice. Then click Next



6. Select the default shared printer and enter the printer name and share name of your choice.  
Click apply then click **Next**.



7. Select typical Installation then click **Next** to install the printer.



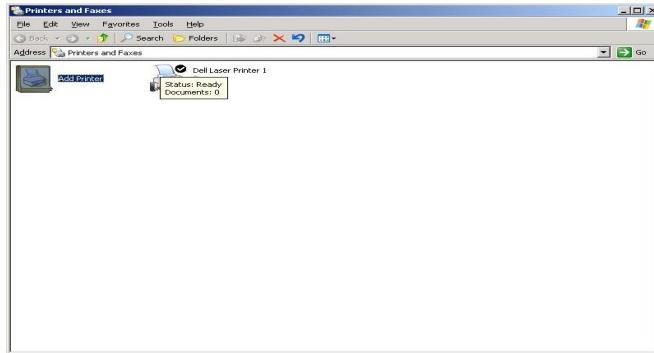
8. Recommended to click **Print Test Page** to ensure printer is working properly then click **Finish**.



9. After this you have successfully installed the printer using the Printer CD

## Manually Installing the Dell 5330dn Mono Laser Printers

1. Browse to the Printers and Faxes icon and select Add Printer



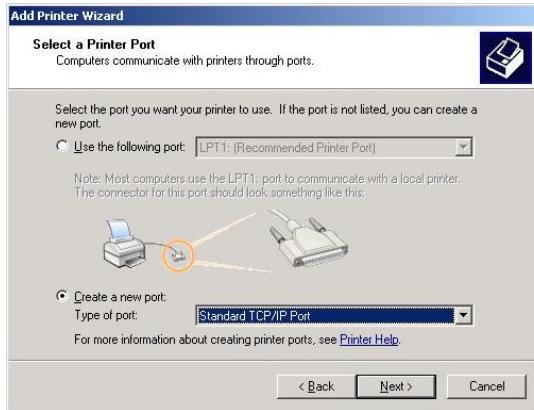
2. Click Next at the add printer Wizard



3. Select "Locally Attached Printer" radio button and unselect checkbox to automatically detect and install Plug and Play Printer checkbox. Then Click Next



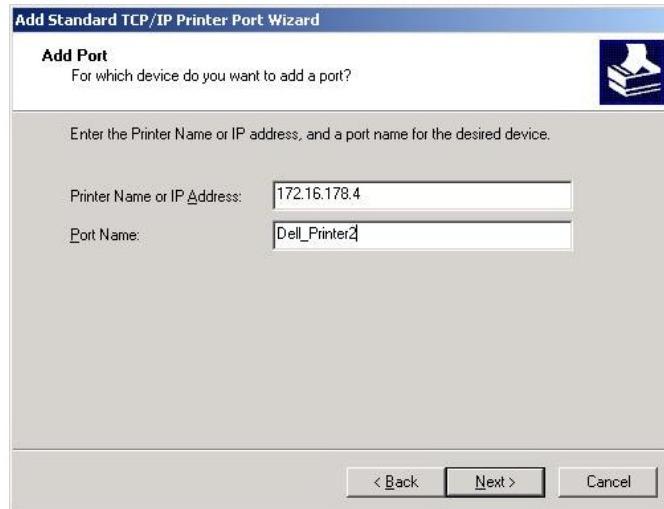
4. Select the printer Port Type associated with the Printer. Preferably “Standard TCP/IP port”. Then click **Next**



5. On the Add Standard TCP/IP Port wizard ensure the device is turned on and the Network and IP address is connected and configured then click **Next**



6. Enter the associated IP address for the printer in the first text box and Label the Port Name of your choice in the Port name textbox. Then Click **Next**.



7. Select the **Standard** radio button in the **Device Type** panel and select **Generic Network Card** from the drop down menu. Then click **Next**.



8. On the next screen click **Finish** to bring up the Add Printer wizard.  
 9. On the Add Printer Wizard select The **Manufacturer** (Dell) and **Printer Type** (Dell 5330dn Mono Laser Printer)



10. At this point the driver is already installed on the machine. Select “**Keep existing driver**” and click **Next**



11. On the next screen enter a printer name of your choice and select the appropriate radio button if you wish to make the printer the default printer or not.

12. Select Share Name and enter a share name for the printer. Then click **Next**.



13. The next screen you have the option of specifying a Location and Description for the printer.  
Then click **Next**

14. Specify if you wish to print a test page then click **Next**.

15. At this point on clicking **Finish**, you have just successfully installed the printer manually.



## HOW TO CLEAR PAPER JAMS FOR DELL 5330dn LASER PRINTERS

### ***Clearing Jams in the Paper Tray***

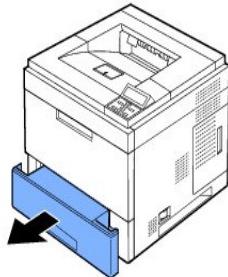
When a paper jam occurs, **Paper Jam** appears on the display. Refer to the table below to locate and clear the paper jam.

Operator Panel Message	Location of Jam
Paper Jam 0	Around the toner cartridge area
Open/Close Door	
MP Tray	In the feeding area of the multi-purpose feeder
Paper Jam 0	
Tray [x]	Paper Feed Jam <b>(tray 1 or optional trays)</b>
Paper Jam 0	
Paper Jam 1	In the paper exit area or around the toner cartridge area
Open/Close Door	
Paper Jam 2	Paper Exit Jam
Check Inside	
Duplex Jam 0	In the duplex unit
Check Inside	
Duplex Jam 1	Between the duplex unit and fuser area
Open/Close Door	

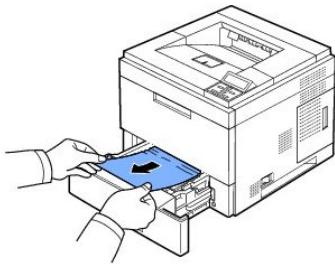
To avoid tearing the paper, pull the jammed paper out gently and slowly. Follow the steps below to clear the jam.

#### Paper Feed Jam (tray 1)

1. Pull paper tray 1 open.



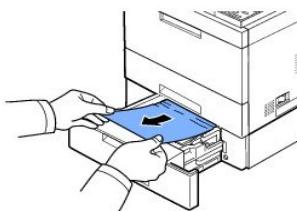
2. Remove the jammed paper by gently pulling it straight out. Ensure that all of the paper is properly aligned in tray 1.



*If you cannot see the paper or the paper does not move when pulled, check the fuser area. Insert paper tray 1 into the printer until it snaps into place. Printing automatically resumes.*

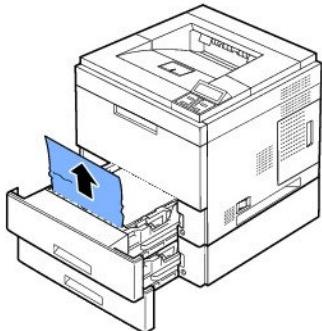
#### Paper Feed Jam (optional trays)

1. Pull **optional tray** open.
2. Remove the jammed paper from the printer.



If you cannot see the paper in this area or the paper does not move when pulled, go to the next step.

3. Pull the tray 1 half-way out.
4. Pull the paper straight up and out.

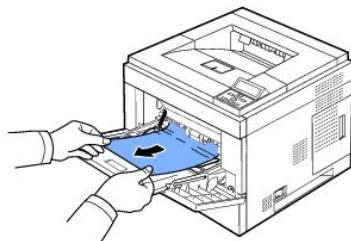


5. Insert the trays back into the printer.

Printing automatically resumes.

### Multi-purpose Feeder Jam

1. If the paper is not feeding properly, pull the paper out of the printer.

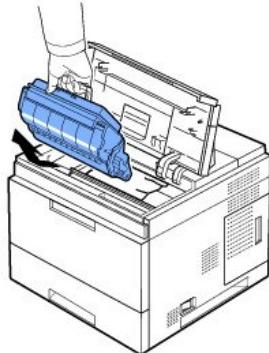


2. Open and close the **top cover** to resume printing.

## Around the Toner Cartridge

NOTES: The fuser area is hot. Take care when removing paper from the printer.

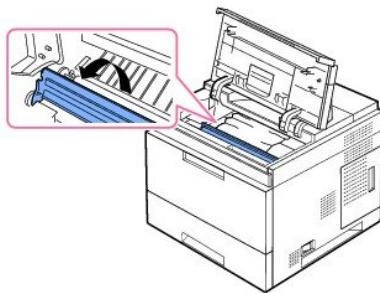
1. Open the **top cover** and pull the **toner cartridge** out. Set it on a clean flat surface.



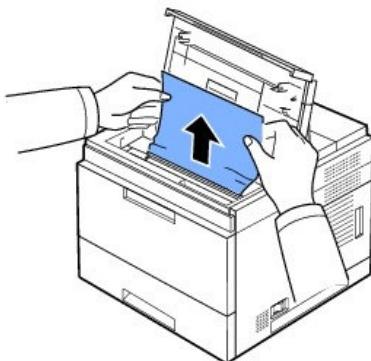
CAUTION: To prevent damage, do not expose the **toner cartridge** to light for more than a few minutes.

CAUTION: Do not touch the green underside of the **toner cartridge**. Use the handle on the cartridge to avoid touching this area.

2. Carefully lift up the feed guide.

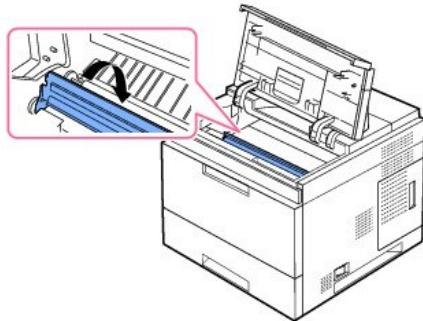


3. Remove the jammed paper by gently pulling it straight out.



*If you cannot see the paper in this area or if there is any resistance removing the paper, stop pulling and go to the paper exit area.*

4. Flip down the feed guide.

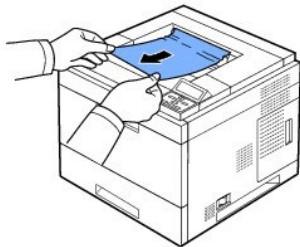


5. Reinsert the toner cartridge and close the top cover. Printing automatically resumes.

NOTE: If it is difficult to reinstall the toner cartridge, ensure that the feed guide has been flipped back down into position.

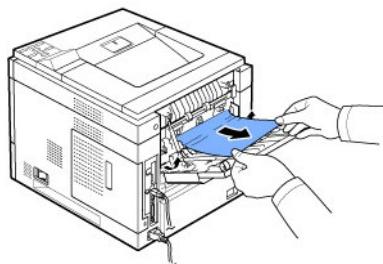
### In the Paper Exit Area

1. Open and close the top cover. The paper is automatically ejected from the printer.
2. Gently pull the paper out of the output tray.



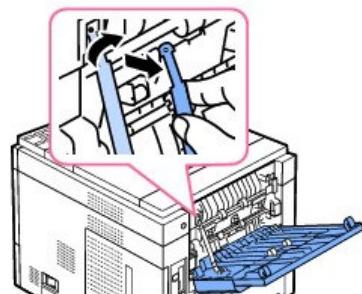
3. *If you cannot see the paper in this area or if there is any resistance removing the paper, stop pulling and go to the next step.*
4. Open the rear door.

5. Then gently pull the paper straight out.

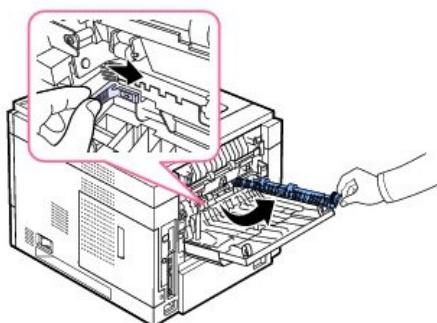


If you still do not see the paper, go to the next step.

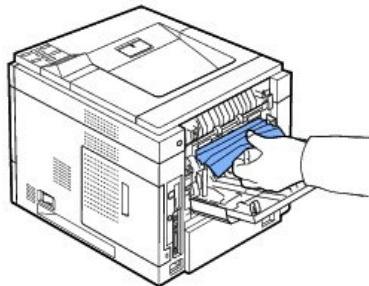
6. Pull the **rear door** strap.



7. While pushing the fuser lever to the right, open the fuser door.



8. Pull the jammed paper out.



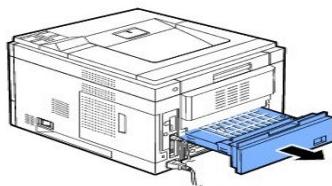
9. Return the fuser lever to original position and insert the **rear door** connector in the printer.
10. Return the pressure levers to their original position and close the rear door.  
Printing automatically resumes.

## In the Duplex Unit Area

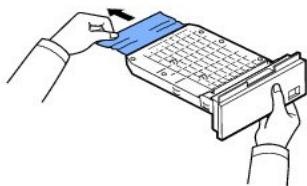
If the duplex unit is not inserted correctly, paper jam may occur. Ensure that the duplex unit is inserted correctly.

### Duplex jam 0

1. Pull the duplex unit out of the printer.



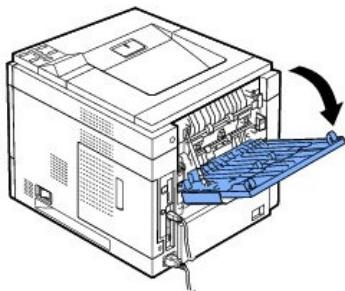
2. Locate the paper and remove it.



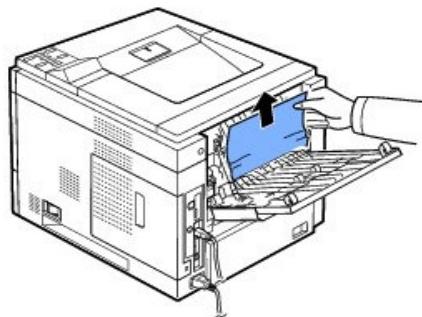
3. Insert the duplex unit into the slot.
4. Open and close the top cover. The printer will resume printing.

## Duplex jam 1

1. Open the rear door.



2. Gently pull the jammed paper straight up.



3. Close the rear door.
4. Open and close the top cover. The printer will resume printing.

## Tips for Avoiding Paper Jams

By selecting the correct paper types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined.

- Ensure that the adjustable guides are correctly positioned.
- Do not overload the paper tray. Ensure that the paper is below the paper capacity mark on the inside wall of the paper tray.
- Do not remove the paper from the tray while your printer is printing.
- Flex, fan and straighten the paper before loading.
- Do not use creased, damp, or curled paper.
- Do not mix paper types in the paper tray.
- Use only recommended print materials.
- Ensure that the recommended print side of print materials is facing down in the paper tray and facing up in the **multi-purpose feeder**.

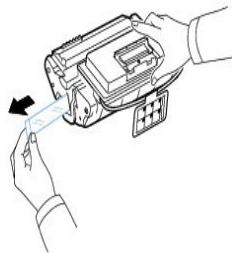
## HOW TO REPLACE TONER CARTRIDGE FOR DELL 5330dn LASER PRINTERS

To replace the toner cartridge:

1. Remove the new toner cartridge from its bag.



2. Locate the sealing tape at the end of the toner cartridge. Carefully pull the tape completely out of the cartridge and discard it.

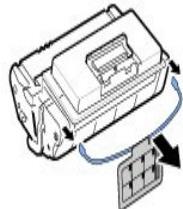


NOTE: The sealing tape should be longer than 60 cm when correctly removed.

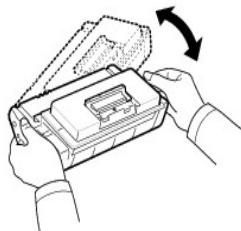
NOTE: Holding the toner cartridge, pull the sealing tape straight to remove it from the cartridge. Be careful not to cut the tape. If this happens, you cannot use the toner cartridge.

NOTE: Refer to the helpful pictures on the cartridge wrapping paper.

3. Remove the flexible plastic holder out of the **toner cartridge**.



4. Thoroughly shake the cartridge 5 or 6 times to distribute the toner evenly inside the cartridge.



Thoroughly roll the cartridge to assure maximum copies per cartridge. Save the box and the plastic bag for shipping.

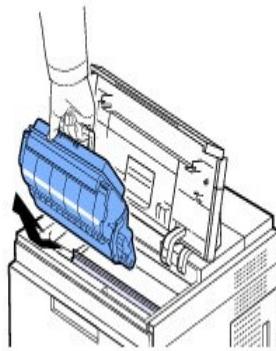
NOTE: If toner comes into contact with your clothing, wipe the toner off with a dry cloth and wash your clothing in cold water. Hot water sets toner into fabric.

CAUTION: To prevent damage, do not expose the **toner cartridge** to light for more than a few minutes.

CAUTION: Do not touch the green underside of the **toner cartridge**. Use the handle on the cartridge to avoid touching this area.

5. Open the **top cover**.

6. Pull the **toner cartridge** out.



7. Hold the **toner cartridge** by the handle and slowly insert the cartridge into the opening in the printer.
8. Tabs on the sides of the cartridge and corresponding grooves within the printer will guide the cartridge into the correct position until it locks into place completely.

NOTE: Do not use excessive force when inserting the cartridge into the printer. Ensure cartridge is placed correctly according to the tabs and grooves before applying any pressure..

9. Close the **top cover**. Ensure that the cover is securely closed.

NOTE: When a new cartridge is in its first use, wait about 15 seconds before the first printed paper comes out.

## GLOSSARY

**Active Directory (AD)** is an implementation of LDAP directory services by Microsoft for use primarily in Windows environments. Its main purpose is to provide central authentication and authorization services for Windows based computers. Active Directory also allows administrators to assign policies, deploy software, and apply critical updates to an organization. Active Directory stores information and settings in a central database. Active Directory networks can vary from a small installation with a few hundred objects, to a large installation with millions of objects.

**Asset Tag Number – see Service Tag Number**

A **directory service (DS)** is a software application — or a set of applications — that stores and organizes information about a computer network's users and network resources, and that allows network administrators to manage users' access to the resources. Additionally, directory services act as an abstraction layer between users and shared resources.

**Authorization** is the concept of allowing access to resources only to those permitted to use them. More formally, authorization is a process (often part of the operating system) that protects computer resources by only allowing those resources to be used by resource consumers that have been granted authority to use them. Resources include individual files' or items' data, computer programs, computer devices and functionality provided by computer applications. Examples of consumers are computer users, computer programs and other devices on the computer. Authorization (deciding whether to grant access) is a separate concept to authentication (verifying identity), and usually dependent on it.

**Lightweight Directory Access Protocol, or LDAP** is an application protocol for querying and modifying directory services running over TCP/IP.

**Protocol** is a convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints. In its simplest form, a protocol can be defined as **the rules governing** the syntax, semantics, and synchronization of communication. Protocols may be implemented by hardware, software, or a combination of the two. At the lowest level, a protocol defines the behavior of a hardware connection.

**TCP/IP** is named after two of the most important protocols in it: the Transmission Control Protocol (TCP) and the Internet Protocol (IP), which were also the first two networking protocols defined. They allow computers to communicate across data networks.

A **network segment** is a portion of a computer network where in every device communicates using the same physical layer. Devices that extend the physical layer, such as repeaters or network hubs, are also considered to extend the segment.

**Crossover Cable** - An **Ethernet crossover cable** is used to connect similar devices to facilitate the sharing of resources via their network adapters. It is a type of Ethernet cable used to connect computing devices together directly where they would normally be connected via a network switch, hub or router. For example it can be used to connect a PC and a laptop or two PC's.

**Control Panel** - A section in Microsoft Windows that enables a user to modify the computer's settings. Changing the mouse settings, display settings, sound settings, and keyboard settings are just a few of the examples of what can be modified in the Control Panel.

### Express Service Code

An Express Service Code is simply a mathematical conversion of your System Service Tag into a purely numeric format allowing for easy entry into Dell's automated call-routing system. Enter this number, using a touch-tone telephone, into the automated call-routing system when contacting Dell for assistance.



**IP Address – (Internet Protocol Address)** - An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

Within an isolated network, you can assign IP addresses at random as long as each one is unique. However, connecting a private network to the Internet requires using registered IP addresses (called Internet addresses) to avoid duplicates.

The four numbers in an IP address are used in different ways to identify a particular network and a host on that network.

**Ipconfig - (Internet Protocol Config)** in Windows is a command line interface that displays all current TCP/IP network configuration values and refreshes Dynamic Host Configuration Protocol DHCP and Domain Name System DNS settings.[1] Similar GUI tools named winipcfg & wntipcfg also exist. The former pre-dates ipconfig.

**Network** - consists of two or more computers that are linked in order to share resources (such as printers and CD-ROMs), exchange files, or allow electronic communications. The computers on a network may be linked through cables, telephone lines, radio waves, satellites, or infrared light beams.

**Network Switch** - A **network switch** is a computer networking device that connects network segments.

**NSLookup** - The **nslookup** command can be used in Windows and Unix to find various details relating to DNS including IP addresses of a particular computer, MX records for a domain or the NS Servers of a domain - all using DNS lookups. The name means "name Server lookup". The most common version of the program is included as part of the BIND package. A more modern alternative to NSLookup is the **dig** program, also shipping with BIND.

NSLookup comes with a number of subcommands to help you get more information from the specific DNS Servers. They are:

Server NAME (where NAME is the name or IP address of the DNS Server you wish to query). It is not always possible to query a specific DNS Server as often DNS queries are blocked to prevent denial of service attacks

**Ping** - A utility to determine whether a specific IP address is accessible. It works by sending a packet to the specified address and waiting for a reply. PING is used primarily to troubleshoot Internet connections. There are many freeware and shareware Ping utilities available for personal computers.

It is often believed that "Ping" is an abbreviation for *Packet Internet Groper*, but Ping's author has stated that the names comes from the sound that a sonar makes.

**Security Policy** - A Security Policy is a set of objectives, rules of behaviour for users and administrators, and requirements for system configuration and management that collectively are designed to ensure Security of computer systems in an organization.

A Security Policy might include sections on:

- Virus detection and prevention.
- Firewall use and configuration.
- Password strength and management.
- Host System administration practices.
- Access Control rules.
- Use of Access Logs.
- Use of screen locking software.
- Logging out of unattended workstations.
- Physical security.
- Account termination.
- Procedures for granting and revoking system access.

**Service Tag Number** - A bar code label on the computer that identifies it when you call Dell for customer or technical assistance. Your Service Tag is a unique five- to seven- digit alphanumeric (letter and number) code, which is found on a white bar-coded label affixed to your Dell computer or peripheral.

**Switch – see Network Switch**

**Systems Administrator** – Is an individual responsible for maintaining a multi-user computer system, including a local-area network (LAN). Typical duties include:

- Adding and configuring new workstations
- Setting up user accounts
- Installing system-wide software
- Performing procedures to prevent the spread of viruses
- Allocating mass storage space

The System Administrator is sometimes called the Sys Admin or the Systems Administrator. Small organizations may have just one System Administrator, whereas larger enterprises usually have a whole team of System Administrators.

## APPENDIX

### Installation of Microsoft Windows Server 2003

To begin the installation

- 1.Insert the Windows Server 2003 CD in the CD-ROM drive.
- 2.Restart the computer. If prompted, press any key to boot from the CD.  
The Windows Server 2003 installation begins.
- 3.On the Welcome to Setup screen, press Enter.
- 4.Review and, if acceptable, agree to the license agreement by pressing F8.  
**Note:** If you had a previous version of Windows Server 2003 installed on this Server, you might get a message asking if you want to repair the drive. Press Esc to continue and not repair the drive.
- 5.Follow the instructions to delete all existing disk partitions. The exact steps will differ based on the number and type of partitions already on the computer. Continue to delete partitions until all disk space is labeled as Unpartitioned space.
- 6.When all disk space is labeled as Unpartitioned space, press C to create a partition in the unpartitioned space on the first disk drive (as applicable).
- 7.If your Server has a single disk drive, split the available disk space in half to create two equal-sized partitions. Delete the total space default value. Type the value of half your total disk space at the Create partition of size (in MB) prompt, and then press Enter. (If your Server has two disk drives, type the total size of the first drive at this prompt.)
- 8.After the New <Raw> partition is created, press Enter.
- 9.Select Format the partition using the NTFS file system <Quick>, and then press Enter.

Windows Server 2003 Setup formats the partition and then copies the files from the Windows Server 2003 Server CD to the hard drive. The computer restarts and the Windows Server 2003 Installation Program continues.

#### Completing the Installation

To continue the installation with the Windows Server 2003 Setup Wizard

1. The Windows Server 2003 Setup Wizard detects and installs devices. This can take several minutes, and during the process your screen may flicker.
2. In the Regional and Language Options dialog box, make changes required for your locale (typically, none are required for the United States), and then click Next.
3. In the Personalize Your Software dialog, type Mike Nash in the Name box and type Reskit in the Organization box. Click Next.
4. Type the Product Key (found on the back of your Windows Server 2003 CD case) in the text boxes provided, and then click Next.
5. In the Licensing Modes dialog box, select the appropriate licensing mode for your organization, and then click Next.

6. In the Computer Name and Administrator Password dialog box, type the new computer name HQ-CON-DC-01 in the computer name box, and then click Next.

**Best Practice:** To facilitate the steps in these guides, the Administrator password is left blank and there is no password. This is not an acceptable security practice. When installing a Server for your production network, a password should always be set. Windows Server 2003 requires complex passwords by default.

7. When prompted by Windows Setup, click Yes to confirm a blank Administrator password.
8. In the Date and Time Settings dialog box, correct the current date and time if necessary, and then click Next.
9. In the Networking Settings dialog box, make sure Typical Settings is selected, and then click Next.
10. In the Workgroups or Computer Domain dialog box (No is selected by default), click Next.

**Note:** A domain name could be specified at this point, but this guide uses the Configure Your Server Wizard to create the domain name at a later time.

The Windows Server 2003 Installation continues and configures the necessary components. This may take a few minutes.

11. The Server restarts and the operating system loads from the hard drive.

Windows Server 2003 Installation Instructions were adapted from:  
<http://www.microsoft.com/technet/prodtechnol/windowsServer2003/>